Model NV-216A-PV

Video Transceiver

Features:

- Power-Video (PV) signals are routed via UTP and RJ45
- Use with NVT's PVD™ Power Supply Hubs and Cable Integrators, or with a second NV-216A-PV
- Up to 750ft (225m) with a NVT Passive Hub or Transceiver
- Up to1,500ft (460m) with a NVT StubEQ™ Hub
- Up to 3,000ft (1km) with a NVT DigitalEQ™ Hub or active receiver, (see Power Distance Chart)
- Frequency response DC to 10MHz (see Resolution Distance Chart)
- Supports "up-the-coax" type control signal up to 750ft (225m)
- Exceptional interference rejection
- Built-in transient protection
- Limited lifetime warranty

The NVT Model NV-216A-PV Video Transceiver with Power is a passive (non-amplified) device that allows the transmission of real-time monochrome or color video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported.

The NV-216A-PV incorporates the transceiver engine of NVT's popular NV-214A-M video transceiver with the added value of camera power connections. Used at the camera, the NV-216A-PV has a rugged compact body, a male BNC for direct connection to the camera, and is compatible with NVT's PVD™ product line. The NV-216A-PV can be used with an NVT cable integrator or power supply, an active or passive receiver hub or another NV-216A-PV.

The NV-216A-PV carries a limited lifetime warranty is UL and cUL listed and CE, WEEE and RoHS compliant.

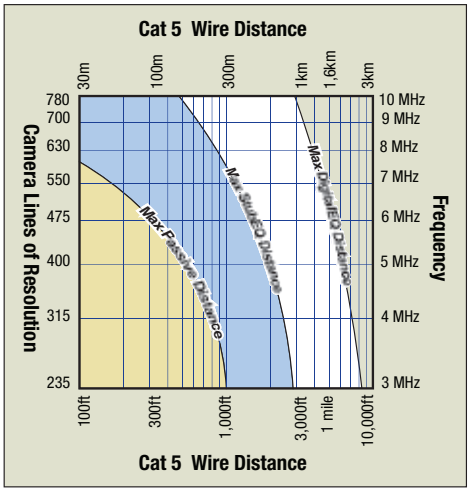
Network Video Technologies
4005 Bohannon Drive • Menlo Park, CA 94025 • USA
(+1) 650.462.8100 • FAX (+1) 650.326.1940
nvt.com • www.nvt.com/email

Model NV-216A-PV

Video Transceiver

Technical Specifications

VIDEO DISTANCE RECOMMENDATIONS



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 24VAC/12VDC Camera with **NV-216A-PV**		
Power Supply Voltage	**24 VAC**	**28 VAC**
Minimum Voltage at Camera	**14 VAC**	**14 VAC**
B&W Camera, 2.4 W		
2-pair 24 AWG	1,753ft (534m)	2,454ft (748m)
2-pair 23 AWG	2,210ft (674m)	3,094ft (943m)
Color Camera, 4.8 W		
2-pair 24 AWG	874ft (266m)	1,223ft (373m)
2-pair 23 AWG	1,102ft (336m)	1,542ft (470m)
Color Camera, 7.2 W		
2-pair 24 AWG	583ft (178m)	816ft (249m)
2-pair 23 AWG	735ft (224m)	1,029ft (314m)

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.

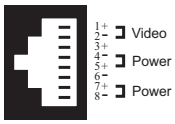
Wire should be category rated Unshielded Twisted-Pair (UTP) cable, Low voltage camera power, video, and RS-422 or RS-485 telemetry may be sent within the same wire bundle. Do not run 24VAC or 28VAC in the same wire bundle with analog telecom signals. However you may share the same wire/cable tray.

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 50 KHz to 10 MHz	60 dB typ
Impedance	
Coax, male BNC	75 ohms
UTP, RJ45 data connector	100 ohms

RJ45 PINOUTS



WIRE TYPE

Network Wiring	One unshielded twisted pair 22-24 AWG (0,5-0,64mm)
Category type	2 or better
Impedance	100 ± 20 ohms
DC loop resistance	52 ohms per 1,000ft (18 ohms per 100m)
Differential capacitance	19 pF/ft max (62 pF/m max)

ENVIRONMENTAL

Temperature	-22 to +167 °F (-30 to +75°C)
Humidity (non-condensing)	0 to 95%
Transient immunity	per ANSI / IEEE 587 C62.41

MECHANICAL

Body Length	1.6in (40,6mm)
Body Depth	0.88in (22mm)
Body Height (not including BNC)	.81in (20,5mm)
Product Weight	1.0oz (30g)
Packaged Weight	2.0oz (57g)

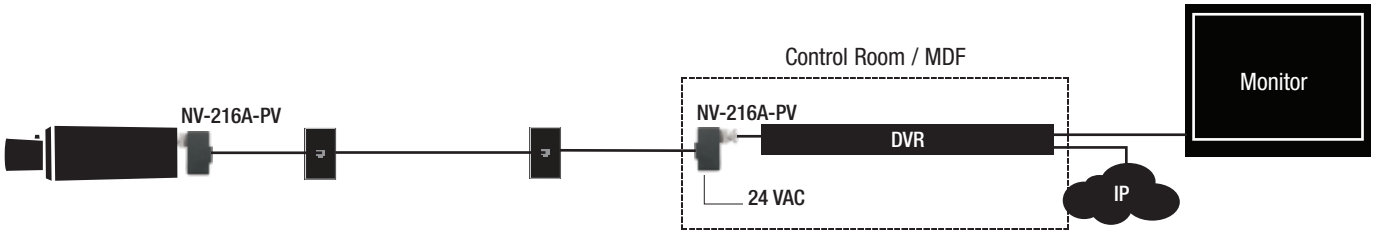
REGULATORY

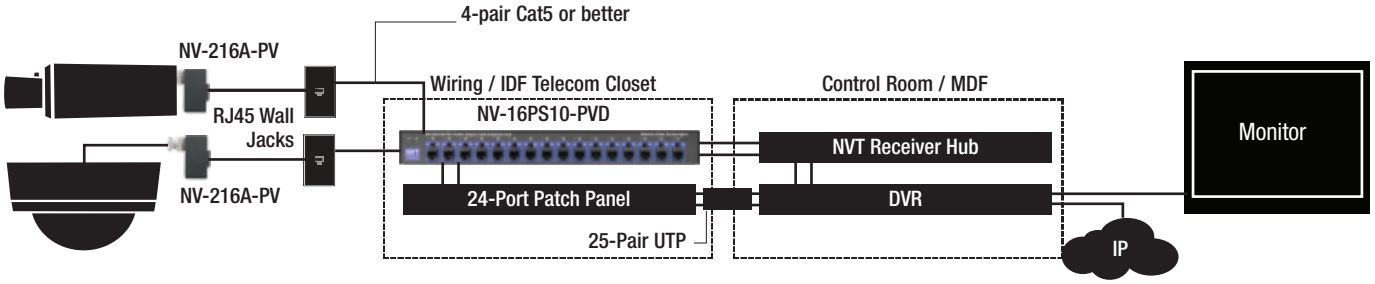
Specifications subject to change without notice.

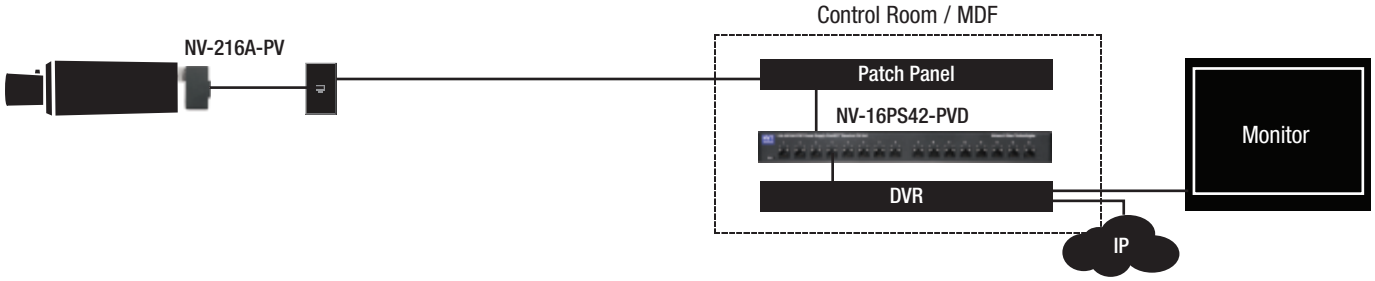
Model NV-216A-PV

Video Transceiver

Typical Applications







Network Video Technologies
4005 Bohannon Drive • Menlo Park, CA 94025 • USA
(+1) 650.462.8100 • FAX (+1) 650.326.1940
nvt.com • www.nvt.com/email

410-216-1-F