



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
- Up to 3,000ft (1km) with an NVT active receiver or hub, (see Power 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 NVT Model NV-216A-PV video transceiver allows transmission of CCTV video and low voltage power over UTP cable. 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. Power and Video are routed via UTP and RJ45 connections. Used at the camera, the passive NV-216A-PV has a compact body, a male BNC for direct connection to the camera, and is compatible with NVT's PVD™ product line. Connect the RJ45 to 4-pair cable to be routed to the NVT cable integrator and on to an active or passive receiver hub in the MDF/Control Room.

The unparalleled interference rejection and low emissions of the NV-216A-PV allows video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of a shared or existing cable plant. The NV-216A-PV carries a limited lifetime warranty are UL and cUL listed and CE, WEEE and RoHS compliant.

Network Video Technologies

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Technical Specifications

WIRE DISTANCE (Power Distance Chart)

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

Fixed 24VAC Camera	NV-216A-PV	
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	21 VAC	21 VAC
B&W Camera 100 mA, 2.4 W		
2-pair 24 AWG	899ft (274m)	2,098ft (640m)
2-pair 23 AWG (Cat6)	1,134ft (346m)	2,645ft (807m)
Color Camera 200 mA, 4.8 W		
2-pair 24 AWG	450ft (137m)	1,049ft (320m)
2-pair 23 AWG (Cat6)	567ft (173m)	1,323ft (403m)
Color Camera 300 mA, 7.2 W		
2-pair 24 AWG	300ft (91m)	699ft (213m)
2-pair 23 AWG (Cat6)	378ft (115m)	862ft (269m)

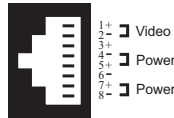
Fixed 12VDC Camera	NV-216A-PV	
Power Supply Voltage	12 VDC	
Minimum Voltage at Camera	11.5 VDC	
B&W Camera 200 mA, 2.4 W		
2-pair 24 AWG	75ft (23m)	
2-pair 23 AWG (Cat6)	94ft (29m)	
Color Camera 400 mA, 4.8 W		
2-pair 24 AWG	37ft (11m)	
2-pair 23 AWG (Cat6)	47ft (14m)	
Color Camera 600 mA, 7.2 W		
2-pair 24 AWG	25ft (8m)	
2-pair 23 AWG (Cat6)	31ft (10m)	

Notes: 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 24 or 28VAC within the same wire bundle as other telecom or datacom signals.

VIDEO

Frequency response	DC to 5 MHz
Attenuation	0.5 dB typ
Common-mode / Differential-mode rejection	
50 KHz to 5 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) 2 or better
Category type	100 ± 20 ohms
Impedance	52 ohms per 1,000ft (18 ohms per 100m)
DC loop resistance	19 pF/ft max (62 pF/m max)
Differential capacitance	

ENVIRONMENTAL

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

MECHANICAL

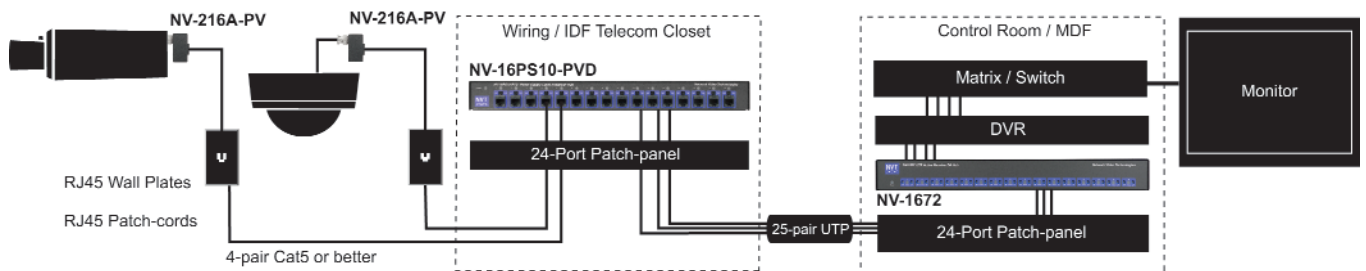
Body Length	1.6in (40.6mm)
Body Depth	0.88in (22mm)
Body Height (not including BNC)	.81in (20.5mm)
Weight	1.0oz (30g)

REGULATORY



Specifications subject to change without notice.

Typical Application



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