



Model NV-716J-PVD

Cable Integrator Hub



Features:

- Connectivity for up to sixteen cameras, each via a single RJ45 4-pair cable
- Use with the NV-216A-PV or NV-218A-PVD transceivers or the NV-226J-PV transmitter at the camera
- Uses any third-party power supply to power cameras via UTP over significant distances (see Power Distance Chart)
- Cable-management solution from the camera to the Wiring Closet and on to the Control Room
- 1U high; 1" deep; wall or rack-mountable
- Limited lifetime warranty

Typically installed in the wiring closet or IDF room, the NV-716J-PVD is a passive “pass-through” wiring device that efficiently consolidates camera power, video, and pan/tilt/zoom telemetry data onto a minimum of 4-pair RJ45 cables.

Power, video and data are converted at the camera using a PVD™ transceiver which utilizes a single 4-pair cable with RJ45 connectors to deliver each camera's signals to the NV-716J-PVD. Up to sixteen cameras are supported. The NV-716J-PVD receives low-voltage camera power from any third-party multi-output Class 2 power supply. Control Room connections are achieved with a single 4-pair RJ45 cable for each group of four cameras. P/T/Z telemetry data, if required, passes through another 4-pair RJ45 cable. Control Room connections may be made using any multi-channel NVT receiver or hub. All equipment employs industry-standard EIA/TIA 568B pinouts.

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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 21 VAC at the 24 VAC 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)

P/T/Z 24VAC Camera used with NV-218A-PVD		
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	21 VAC	21 VAC
P/T/Z Camera, 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 (748m)	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

UTP, RJ45 Connectors

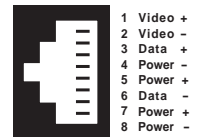
100 ohms

POWER

16 to 24AWG (0,5mm to 1,3mm)

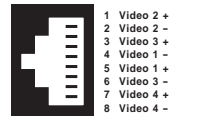
CAMERA PVD CONNECTIONS

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



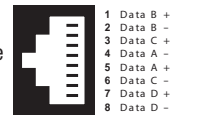
CONTROL ROOM VIDEO

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 paralleled together in groups of four, and passed through the unit and delivered to the control room via a rear-panel RJ45 connector.



CONTROL

UTP, RJ45 Connectors

100 ohms

ENVIRONMENTAL

Temperature -22 to +167 °F (-30 °C to +75 °C)
Humidity (non-condensing) 0 to 95%

MECHANICAL

Dimensions, excluding brackets and connectors
19in wide x 1.73in high x .8in deep
(482mm wide x 44mm high x 21mm deep)
Weight 0.94lb (0.43kg)
Mounting Rack mount

Specifications subject to change without notice.



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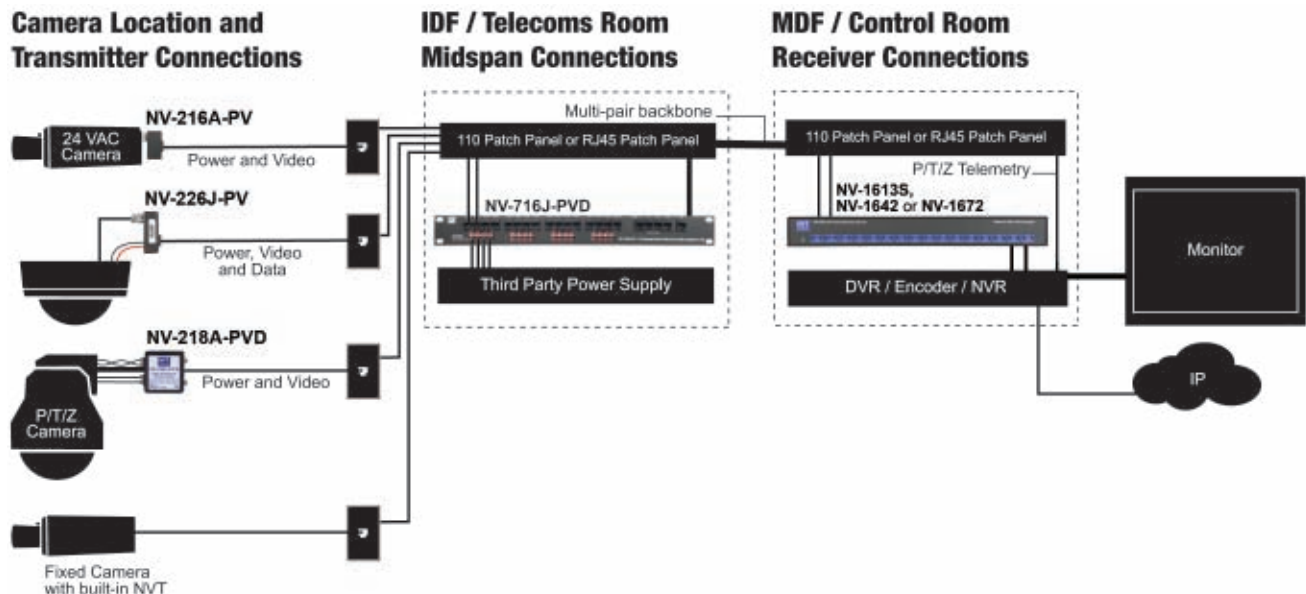
NV-716J-PVD WIRING DIAGRAM



CAMERA CONNECTIONS

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

Typical Application



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