



## 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, NV-218A-PVD, or NV-226J-PV transceiver 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.

### 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 21 VAC at the 24 VAC camera:

Fixed 24VAC Camera		NV-216A-PV	
Power Supply Voltage	24 VAC	28 VAC	
Minimum Voltage at Camera	21 VAC	21 VAC	
<b>B&amp;W Camera 100 mA, 2.4 W</b>			
2-pair 24 AWG	899ft (274m)	2,098ft (640m)	
2-pair 23 AWG (Cat6)	1,134ft (346m)	2,645ft (807m)	
<b>Color Camera 200 mA, 4.8 W</b>			
2-pair 24 AWG	450ft (137m)	1,049ft (320m)	
2-pair 23 AWG (Cat6)	567ft (173m)	1,323ft (403m)	
<b>Color Camera 300 mA, 7.2 W</b>			
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	24 VAC	28 VAC	
Minimum Voltage at Camera	21 VAC	21 VAC	
<b>B&amp;W Camera 200 mA, 2.4 W</b>			
2-pair 24 AWG		75ft (23m)	
2-pair 23 AWG (Cat6)		94ft (29m)	
<b>Color Camera 400 mA, 4.8 W</b>			
2-pair 24 AWG		37ft (11m)	
2-pair 23 AWG (Cat6)		47ft (14m)	
<b>Color Camera 600 mA, 7.2 W</b>			
2-pair 24 AWG		25ft (8m)	
2-pair 23 AWG (Cat6)		31ft (10m)	

P/T/Z 24VAC Camera		NV-218A-PVD	
Power Supply Voltage	24 VAC	28 VAC	
Minimum Voltage at Camera	21 VAC	21 VAC	
<b>P/T/Z Camera 400 mA, 9.6 W</b>			
2-pair 24 AWG	204ft (62m)	531ft (162m)	
2-pair 23 AWG (Cat6)	258ft (79m)	670ft (204m)	
<b>P/T/Z Camera 500 mA, 12 W</b>			
2-pair 24 AWG	163ft (50m)	425ft (130m)	
2-pair 23 AWG (Cat6)	206ft (63m)	536ft (163m)	
<b>P/T/Z Camera 1,000 mA, 24 W</b>			
2-pair 24 AWG	82ft (25m)	212ft (65m)	
2-pair 23 AWG (Cat6)	103ft (31m)	268ft (82m)	

Fixed 12VDC Camera		NV-226J-PV	
Power Supply Voltage	24 VAC	28 VAC	
Minimum Voltage at Camera	11.5 VDC	11.5 VDC	
<b>B&amp;W Camera 200 mA, 2.4 W</b>			
2-pair 24 AWG	1,498ft (457m)	2,098ft (640m)	
2-pair 23 AWG (Cat6)	1,889ft (576m)	2,645ft (807m)	
<b>Color Camera 400 mA, 4.8 W</b>			
2-pair 24 AWG	874ft (267m)	1,174ft (358m)	
2-pair 23 AWG (Cat6)	1,102ft (336m)	1,480ft (452m)	

**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

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.



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

#### CONTROL ROOM VIDEO

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



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

#### 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 D +
- 8 Data D -

#### CONTROL

UTP, RJ45 Connectors

100 ohms

#### ENVIRONMENTAL

Ambient temperature -22 to +167 °F (-30 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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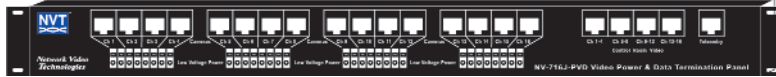
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### NV-716J-PVD WIRING DIAGRAM



#### CAMERA CONNECTIONS

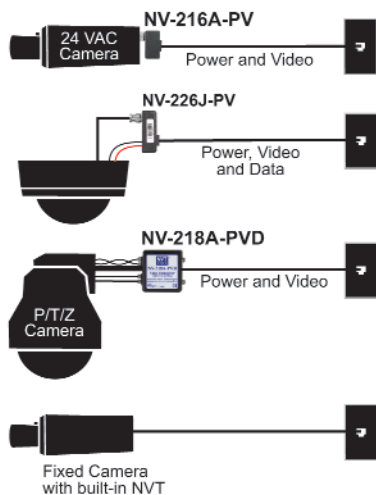
Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8
1 Video 1+	1 Video 2+	1 Video 3+	1 Video 4+	1 Video 5+	1 Video 6+	1 Video 7+	1 Video 8+
2 Video 1-	2 Video 2-	2 Video 3-	2 Video 4-	2 Video 5-	2 Video 6-	2 Video 7-	2 Video 8-
3 Data A+	3 Data 2+	3 Data 3+	3 Data 4+	3 Data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

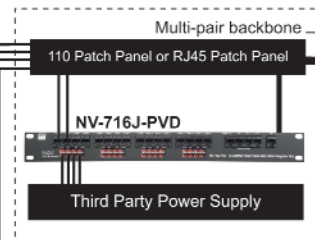
Channel 9	Channel 10	Channel 11	Channel 12	Channel 13	Channel 14	Channel 15	Channel 16
1 Video 9+	1 Video 10+	1 Video 11+	1 Video 12+	1 Video 13+	1 Video 14+	1 Video 15+	1 Video 16+
2 Video 9-	2 Video 10-	2 Video 11-	2 Video 12-	2 Video 13-	2 Video 14-	2 Video 15-	2 Video 16-
3 Data C+	3 Data C+	3 Data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

### Typical Application

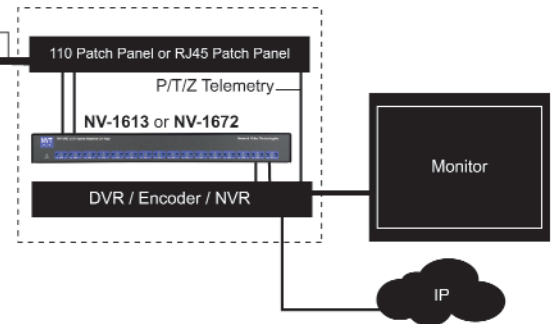
#### Camera Location and Transmitter Connections



#### IDF / Telecoms Room Midspan Connections



#### MDF / Control Room Receiver Connections



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