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 to 1,500ft (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.
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Technical Specifications

**VIDEO DISTANCE RECOMMENDATIONS**

<table>
<thead>
<tr>
<th>Camera Lines of Resolution</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 MHz</td>
<td>100 ft</td>
</tr>
<tr>
<td>4 MHz</td>
<td>300 ft</td>
</tr>
<tr>
<td>5 MHz</td>
<td>1,000 ft</td>
</tr>
<tr>
<td>6 MHz</td>
<td>1 mile</td>
</tr>
<tr>
<td>7 MHz</td>
<td>3,000 ft</td>
</tr>
<tr>
<td>8 MHz</td>
<td>10,000 ft</td>
</tr>
</tbody>
</table>

**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 24VAC Camera**

- **Power Supply Voltage**: 24 VAC
- **Minimum Voltage at Camera**: 21 VAC

<table>
<thead>
<tr>
<th>Wire Resistance</th>
<th>MaxPassiveDistance</th>
<th>MaxStubEQ</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pair 24 AWG</td>
<td>899 ft (274m)</td>
<td>1,134 ft (346m)</td>
<td>2,320 ft (707m)</td>
</tr>
<tr>
<td>2-pair 23 AWG</td>
<td>567 ft (173m)</td>
<td>1,155 ft (352m)</td>
<td></td>
</tr>
</tbody>
</table>

**Fixed Dual Voltage 24VAC/12VDC Camera**

- **Power Supply Voltage**: 24 VAC
- **Minimum Voltage at Camera**: 14 VAC

<table>
<thead>
<tr>
<th>Wire Resistance</th>
<th>MaxPassiveDistance</th>
<th>MaxStubEQ</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pair 24 AWG</td>
<td>1,753 ft (534m)</td>
<td>2,454 ft (748m)</td>
<td></td>
</tr>
<tr>
<td>2-pair 23 AWG</td>
<td>2,210 ft (674m)</td>
<td>3,000 ft (915m)</td>
<td></td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL**

- **Temperature**: -22 to 167 °F (-30 to +75°C)
- **Humidity (non-condensing)**: 0 to 95%
- **Transient immunity** per ANSI / IEEE 587 052.41

**MECHANICAL**

- **Body Length**: 1.6 in (40.6mm)
- **Body Depth**: 0.88 in (22mm)
- **Body Height (not including BNC)**: 0.81 in (20.5mm)
- **Product Weight**: 1.0 oz (30g)
- **Packaged Weight**: 2.0 oz (57g)

**REGULATORY**

Specifications subject to change without notice.

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.
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Typical Applications