

# DM-CBL-NP-SP500

## DigitalMedia™,ç Cable, non-plenum, 500 ft spool

Crestron DM-CBL-NP cable provides a high-performance, single-cable wiring solution for DigitalMedia (DM) systems. Within a single jacket, DM-CBL-NP contains one high-bandwidth/low-crosstalk shielded 4-twisted pair (STP) cable, one CAT5e unshielded 4-twisted pair (UTP) cable, and one DMNet cable.

The STP "Video Data" cable, which connects to the 'D' port of a DigitalMedia device, is of a specialized construction designed to allow the longest possible cable lengths<sup>[1]</sup> for transporting high-definition digital video and audio. The Cat5e "Data Management" cable, which connects to the 'M' port, carries high-speed Ethernet and other data, plus 5V DC power. Finally, the DMNet cable carries additional proprietary control signals and 24V DC power.

Wiring a DigitalMedia system using DM-CBL-NP is simple, requiring just one cable to be run to each DM receiver (i.e. Room Controller) and transmitter location<sup>[1]</sup>. Foot markers are printed on the outer jacket making it easy to determine the exact length of each cable run when commissioning the installed system.

Termination of a DM cable is accomplished using one standard RJ45 (not provided) for 'M', one detachable terminal block (provided with each DM device) for DMNet, and one Crestron **DM-CONN** shielded RJ45 (sold separately) for 'D'. The DM-CONN connector enables fast and reliable termination of the shielded twisted-pair cable without requiring any special tools.

**For plenum applications, use DM-CBL-P.**

### SPECIFICATIONS

#### 'D' Video Data

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Construction: Four twisted pair, each pair isolated by an internal spline within an inner jacket, shield, braid, and overall jacket

(4) Twisted Pairs: Colors: Blue/white, orange/white, green/white, brown/white;

Conductors: 24 AWG x8 solid copper;

Insulation: 0.0055 inch thick HDPE;

Outer Diameter (per conductor): 1.028 ±0.02 mm;

Shield: Aluminum/Mylar tape w/aluminum on the outside;

Braid: Tin/copper (45% coverage);

Mutual Capacitance: 5600 pF / 100 m;

Capacitance Unbalance: 330 pF / 100 m;

Inner Jacket: Color: Natural;

Material: PVC;

Jacket: Color: Blue;

Material: PVC;

Thickness: 0.018 inch;

#### 'M' Data Management (CAT5E)

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(4) Twisted Pairs: Colors: Blue/white, orange/white,

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green/white, brown/white;  
Conductors: 24 AWG x8 solid copper;  
Insulation: 0.0077 inch thick Polyethylene;  
Shield: none;  
Mutual Capacitance: 14 pF / ft nominal;  
Capacitance Unbalance: 330 pF / 100 m maximum;  
Characteristic Impedance: 100 ohms  $\pm$ 15% (0.772 to 100 MHz);  
Velocity of Propagation: 70%;  
Conductor DC Resistance: 28.6 ohms / 1000 ft maximum;  
Jacket: Color: Yellow;  
Material: PVC;  
Ripcord: yes;  
Thickness: 0.018 inch;

### 'DMNet' Control & Power

Construction: (1) 22 AWG shielded pair (control) and (1) 18 AWG pair (power) w/overall jacket  
Control Pair: Colors: Gray/orange;  
Conductors: 22 AWG x2 stranded copper;  
Insulation: 0.025 inch thick foam Polyolefin;  
Shield: Aluminum/Polyester (100% coverage) w/aluminum on the inside;  
Drain: 24 AWG tinned stranded copper;  
Capacitance: 12.5 pF / ft, nominal;  
Power Pair: Colors: Red/black;  
Conductors: 18 AWG x2 stranded copper;  
Insulation: 0.01 inch thick PVC;  
Jacket: Color: Gray;  
Material: PVC;  
Ripcord: yes;  
Thickness: 0.0325 inch;

### Outer Jacket

Color: Blue w/red stripe  
Composite Construction: All wires contained in a Mylar wrap

w/overall outer jacket  
Material: PVC, flexible, flame retardant  
Ripcord: yes  
Thickness: 0.03 inch  
Outer Diameter: 0.58 inch (14.73 mm) nominal  
Minimum Recommended Bend Radius: 4.5 inches  
Maximum Pull Tension: 73 lbf

### Rating

NEC Article 800; UL Subject 444, Type CM; CSA Type CMG

#### Notes:

1. The maximum allowable cable length depends on multiple factors. One or more DM Repeaters (Model **DM-DR**) may be required. Refer to the Crestron DigitalMedia Design Guide, Doc. #4789 for complete wiring guidelines.