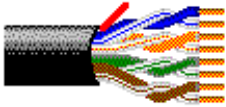


**Detailed Specifications & Technical Data**



**7882A Paired - DataTwist® Category 6**

|                                                                                   |                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>For more information please call<br/><b>1-800-Belden1</b></p> <p><u>See Put-ups and Colors</u></p> <p><b>Color Code Chart : No. 8 for DataTwist Cables (Modified Western Electric).pdf</b></p> |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Description:**

4 pair UTP, 23 AWG solid bare copper conductors, FEP insulation, rod filler, Flamarrest® jacket, rip cord. Sequential marking at two foot intervals.

**SUITABLE APPLICATIONS:**

Suitable Applications: Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, 250MHz Category 6

**PHYSICAL CHARACTERISTICS:**

**CONDUCTOR:**

|                            |                  |
|----------------------------|------------------|
| Number of Pairs            | 4                |
| Total Number of Conductors | 8                |
| AWG                        | 23               |
| Stranding                  | Solid            |
| Conductor Material         | BC - Bare Copper |

**INSULATION:**

|                     |                                      |
|---------------------|--------------------------------------|
| Insulation Material | FEP - Fluorinated Ethylene Propylene |
|---------------------|--------------------------------------|

Pair Color Code Chart :

| Number | Color                        | Number | Color                      |
|--------|------------------------------|--------|----------------------------|
| 1      | White/Blue Stripe & Blue     | 3      | White/Green Stripe & Green |
| 2      | White/Orange Stripe & Orange | 4      | White/Brown Stripe & Brown |

**OVERALL CABLING:**

|                         |                   |
|-------------------------|-------------------|
| Overall Cabling Fillers | Rod Center Member |
|-------------------------|-------------------|

**OUTER SHIELD:**

|                       |            |
|-----------------------|------------|
| Outer Shield Material | Unshielded |
|-----------------------|------------|

**OUTER JACKET:**

|                                  |                                       |
|----------------------------------|---------------------------------------|
| Outer Jacket Material Trade Name | Flamarrest®                           |
| Outer Jacket Material            | LS PVC - Low Smoke Polyvinyl Chloride |

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|                      |     |
|----------------------|-----|
| Outer Jacket Ripcord | Yes |
|----------------------|-----|

**OVERALL NOMINAL DIAMETER:**

|                          |          |
|--------------------------|----------|
| Overall Nominal Diameter | .224 in. |
|--------------------------|----------|

**MECHANICAL CHARACTERISTICS:**

|                                  |                 |
|----------------------------------|-----------------|
| Operating Temperature Range      | -20°C To +75°C  |
| Bulk Cable Weight                | 28 lbs/1000 ft. |
| Max. Recommended Pulling Tension | 40 lbs.         |
| Min. Bend Radius (Install)       | 0.5 in.         |

**APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:**

**APPLICABLE STANDARDS:**

|                         |                           |
|-------------------------|---------------------------|
| NEC/(UL) Specification  | CMP, UL444                |
| CEC/C(UL) Specification | CMP                       |
| TIA/EIA Specification   | 568-B.2-1 Category 6      |
| Other Specification     | UL Verified to Category 6 |

**FLAME TEST:**

|                |              |
|----------------|--------------|
| UL Flame Test  | UL910 Plenum |
| CSA Flame Test | FT6          |

**PLENUM/NON-PLENUM:**

|                   |       |
|-------------------|-------|
| Plenum (Y/N)      | Y     |
| Non-Plenum Number | 7881A |

**ELECTRICAL CHARACTERISTICS:**

|                                             |                       |
|---------------------------------------------|-----------------------|
| Nom. Mutual Capacitance @ 1 KHz             | 15 pF/ft              |
| Maximum Capacitance Unbalance (pF/100 m)    | 330 pF/100 m          |
| Nominal Velocity of Propagation             | 72 %                  |
| Maximum Delay (ns/100 m)                    | 537 @ 100MHz ns/100 m |
| Maximum Delay Skew (ns/100m)                | 45 ns/100 m           |
| Maximum Conductor DC Resistance @ 20 Deg. C | 8.2 Ohms/100 m        |
| Maximum DCR Unbalance @ 20 Deg. C           | 5 %                   |
| Max. Operating Voltage - UL                 | 300 V RMS             |

**ELECTRICAL CHARACTERISTICS - PREMISE:**

|                                     |  |
|-------------------------------------|--|
| Premise Cable Electricals Table 1 : |  |
|-------------------------------------|--|

**Detailed Specifications & Technical Data**



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| Frequency (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR (dB) | Min. Return Loss (dB) | Min. Structural Return Loss (dB) |
|-----------------|-----------------------------|----------------|------------------|---------------|-----------------|-----------------------|----------------------------------|
| 1               | 2.0                         | 74.3           | 72.3             | 72.3          | 70.3            | 20.0                  | na                               |
| 4               | 3.8                         | 65.3           | 63.3             | 61.5          | 59.5            | 23.0                  | na                               |
| 8               | 5.3                         | 60.8           | 58.8             | 55.4          | 53.4            | 24.5                  | na                               |
| 10              | 6.0                         | 59.3           | 57.3             | 53.3          | 51.3            | 25.0                  | na                               |
| 16              | 7.6                         | 56.2           | 54.3             | 48.7          | 46.7            | 25.0                  | na                               |
| 20              | 8.5                         | 54.8           | 52.8             | 46.3          | 44.3            | 25.0                  | na                               |
| 25              | 9.5                         | 53.3           | 51.3             | 43.8          | 41.8            | 24.3                  | na                               |
| 31.25           | 10.7                        | 51.9           | 49.9             | 41.2          | 39.2            | 23.6                  | na                               |
| 62.5            | 15.4                        | 47.4           | 45.4             | 32.0          | 30.0            | 21.5                  | na                               |
| 100             | 19.8                        | 44.3           | 42.3             | 24.5          | 22.5            | 20.1                  | na                               |
| 155             | 25.2                        | 41.5           | 39.5             | 16.3          | 14.3            | 18.8                  | na                               |
| 200             | 29.0                        | 39.8           | 37.8             | 10.8          | 8.8             | 18.0                  | na                               |
| 250             | 32.8                        | 38.3           | 36.3             | 5.5           | 3.5             | 17.3                  | na                               |

Premise Cable Electricals Table 2 :

| Frequency (MHz) | Input (Unfitted) Impedance (Ohms) | Fitted Impedance (Ohms) | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-----------------|-----------------------------------|-------------------------|------------------|--------------------|
| 1               | 100 ± 15                          | 100 ± 15                | 67.8             | 64.8               |
| 4               | 100 ± 15                          | 100 ± 15                | 55.8             | 52.7               |
| 8               | 100 ± 15                          | 100 ± 15                | 49.7             | 46.7               |
| 10              | 100 ± 15                          | 100 ± 15                | 47.8             | 44.8               |
| 16              | 100 ± 15                          | 100 ± 15                | 43.7             | 40.7               |
| 20              | 100 ± 15                          | 100 ± 15                | 41.8             | 38.7               |
| 25              | 100 ± 15                          | 100 ± 15                | 39.8             | 36.8               |
| 31.25           | 100 ± 15                          | 100 ± 15                | 37.9             | 34.9               |
| 62.5            | 100 ± 15                          | 100 ± 15                | 31.9             | 28.8               |
| 100             | 100 ± 15                          | 100 ± 15                | 27.8             | 24.8               |
| 155             | 100 ± 22                          | 100 ± 15                | 23.9             | 20.9               |
| 200             | 100 ± 22                          | 100 ± 15                | 21.8             | 18.7               |
| 250             | 100 ± 32                          | 100 ± 15                | 19.8             | 16.8               |

**PUT-UPS AND COLORS:**

| Item           | Description        | Put-Up (ft.) | Ship Weight (lbs.) | Jacket Color | Notes |
|----------------|--------------------|--------------|--------------------|--------------|-------|
| 7882A 0021000  | 4 PR #23 FEP FLRST | 1000         | 31                 | RED          | C     |
| 7882A 002A1000 | 4 PR #23 FEP FLRST | A1000        | 34                 | RED          |       |
| 7882A 0031000  | 4 PR #23 FEP FLRST | 1000         | 31                 | ORANGE       | C     |
| 7882A 003A1000 | 4 PR #23 FEP FLRST | A1000        | 34                 | ORANGE       |       |
| 7882A 0041000  | 4 PR #23 FEP FLRST | 1000         | 31                 | YELLOW       | C     |

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|                |                       |       |    |             |   |
|----------------|-----------------------|-------|----|-------------|---|
| 7882A 004A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | YELLOW      |   |
| 7882A 0051000  | 4 PR #23 FEP<br>FLRST | 1000  | 31 | GREEN, DARK | C |
| 7882A 005A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | GREEN, DARK |   |
| 7882A 0071000  | 4 PR #23 FEP<br>FLRST | 1000  | 31 | VIOLET      | C |
| 7882A 007A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | VIOLET      |   |
| 7882A 0081000  | 4 PR #23 FEP<br>FLRST | 1000  | 31 | GRAY        | C |
| 7882A 008A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | GRAY        |   |
| 7882A 0091000  | 4 PR #23 FEP<br>FLRST | 1000  | 31 | WHITE       | C |
| 7882A 009A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | WHITE       |   |
| 7882A 0101000  | 4 PR #23 FEP<br>FLRST | 1000  | 31 | BLACK       | C |
| 7882A 010A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | BLACK       |   |
| 7882A 8771000  | 4 PR #23 FEP<br>FLRST | 1000  | 31 | NATURAL     | C |
| 7882A 877A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | NATURAL     |   |
| 7882A D151000  | 4 PR #23 FEP<br>FLRST | 1000  | 31 | BLUE        | C |
| 7882A D15A1000 | 4 PR #23 FEP<br>FLRST | A1000 | 34 | BLUE        |   |

C = CRATE REEL PUT-UP.

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