

Belden® DataTwist® 350 Bonded-Pair Networking Cables

Belden Bonded-Pair

Cables are the best performing UTP cables in the industry. They exceed the full range of performance criteria, both electrical and physical, and set a whole new precedent for cabling with confidence.

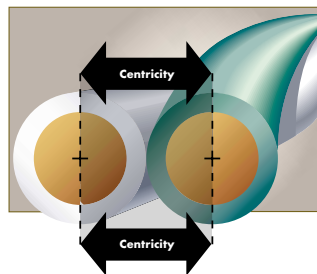
NP 179

An ever-increasing number of applications requiring optimum performance at high frequencies can now be cabled with the assurance that the users' needs will be accommodated easily, economically — and with the future in mind.

Installable Performance™

Belden DataTwist 350 Cables provide the user with superior electrical performance both “on-the-reel” and in use. Belden ensures that its Bonded-Pair networking cables provide the ultimate goal — superior installable performance — by using a patented design.

An ideal pair is comprised of two perfectly balanced insulated conductors that are mirror images of each other.



To achieve this balance, the center-to-center distance, or centricity, between the copper conductors of DataTwist 350 Bonded-Pairs remains fixed and constant along the length of the cable. Centricity helps ensure the signal does not radiate or bleed

off the Bonded-Pair and the pair cancels out incoming noise.

Bonded-Pair Cables Provide Installation Benefits

Typically, when cables are installed they are pulled on, bent around corners, and may kink when coming off the reel. All of these factors can change the physical properties of the cable, which in turn can degrade the cables' electrical performance.

In order to demonstrate the effects a typical installation can have on cable, Belden selected several industry-leading unbonded-pair Category 5e cables and subjected them to an Installation Stress Test. Belden then conducted the same tests on its DataTwist 350 Bonded-Pair cables.

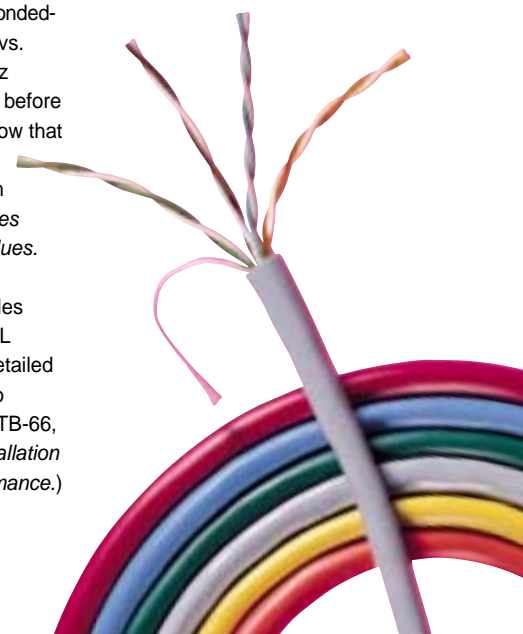
The RL (Return Loss) values of the Category 5e Belden Bonded-Pair cable (DataTwist 350) vs. a leading industry 350 MHz Category 5e cable — both before and after installation — show that the unbonded-pair cable's RL degraded by more than 12dB, or more than 15 times their before-installation values.

Belden's Bonded-Pair cables exhibited little change in RL performance. (For more detailed information, please refer to Belden Technical Bulletin TB-66, *The Impact of Typical Installation Stresses on Cable Performance*.)

Bonded-Pair Cables Require Less Time Spent on Troubleshooting and Rework

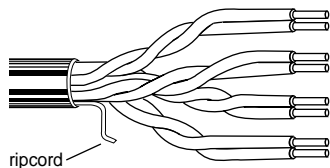
Belden surveyed a large number of contractors nationwide regarding their installation experiences with unbonded- and Bonded-Pair cables. Results showed Belden Bonded-Pair cables are more resistant to the effects of installation and termination-related field test failures when compared to unbonded-pair cables. (For more detailed information, refer to Belden Technical Bulletin TB-67, *Contractor Field-Testing Survey Reveals Performance-Related Cost Savings Using Bonded-Pair Cables*.)

Also refer to Belden's *Bonded-Pair Cables* brochure for additional information on the benefits of Bonded-Pairs.



DataTwist® 350

Bonded-Pair



Product Description

4 pair UTP (unshielded twisted pair) cable, 24 AWG solid bare copper, ripcord, flexible jacket. Jacket is sequentially marked at two-foot intervals. Supports applications intended for enhanced Category 5e type cables such as 10 BASE-T, 100 BASE-T, 155 ATM and Gigabit Ethernet (1000 BASE-T). Third party verified to TIA/EIA 568-B.2 Category 5e.

Physical Characteristics	Non-Plenum (1700A, 1700R)	Plenum (1701A)
Temperature Range:	-20 to +80°C	-20 to +75°C
Insulation Material:	Polyolefin	FEP
Jacket Material:	PVC	Flamarrest®
Max. Pulling Tension:	40 lbs.	40 lbs.
Min. Conductor OD:	0.020"	0.020"
Min. Insulation OD:	0.035"	0.035"
Nom. Weight/1000 ft.:	22 lbs.	23 lbs.
Min. Bend Radius:	0.25"	0.25"
Nom. Diameter:	0.200"	0.193"
Applicable Specifications:	TIA/EIA 568-B.2 Category 5e	TIA/EIA 568-B.2 Category 5e
Flame Rating and Test:	NEC/CEC CM (1700A) NEC/CEC CMR (1700R)	NEC/CEC CMP

Color Codes

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

DataTwist 350 cable comes in a variety of jacket colors in Belden's crate reel and Unreel® packaging.

Jacket Colors

1700A	1700R	1701A
Red	Red	Red
Orange	Orange	Orange
Yellow	Yellow	Yellow
Green	Green	Green
Blue	Blue	Blue
Purple	Purple	Purple
White	White	Gray
Light Gray	Light Gray	Natural
Gray		
Black		

For More Information:

Belden Electronics Division
Technical Support:

1-800-BELDEN-1 or
1-800-BELDEN-3

www.belden.com