

Belden Wire &amp; Cable Company

Product Code  
SM1730ATechnical  
Data Sheet

2-17-01 REV. 10

PRODUCT DETAIL  
SM1730A

## DESCRIPTION:

SHIELDED CATEGORY 5E CABLE. 24 AWG SOLID BARE COPPER, POLYPROPYLENE INSULATION, 4 TWISTED BONDED PAIRS, O/A LATERAL FOIL SHIELD, SPIRAL TC DRAIN, NYLON RIPCORDER, PVC JACKET. SEQUENTIALLY NUMBERED EVERY 1 METER. SHIELD IS AN EXCLUSIVE AND UNIQUE STYLE. DRAIN WIRE IS SPIRALLED OVER THE LATERAL FOIL TAPE. TAPE CONTAINS A SHORTING FOLD. THE SPIRAL DRAIN CORRUGATES THE FOIL, RESULTING IN IMPROVED CRUSH RESISTANCE, FLEXIBILITY, AND PROVIDES ADDITIONAL HOOP/CRUSH STRENGTH FOR A VERY GEOMETRICALLY STABLE DESIGN WITHOUT USING ADDITIONAL CABLE COMPONENTS. A LIGHT WEIGHT, COMPACT CABLE WITH SUPERIOR ELECTRICAL STABILITY, THAT MEETS 100 OHM "UNAVERAGED" AND "NON-FITTED" IMPEDANCE REQUIREMENTS, IS PROVIDED.

## I. ELECTRICAL CHARACTERISTICS:

MAX. OPERATING VOLTAGE: 300 V RMS  
 MAX. CONTINUOUS CURRENT PER CONDUCTOR @ 25 DEG. C: 1.4 A  
 NOM. CAPACITANCE @ 1 KHZ: 14 PF/FT.  
 NOM. VELOCITY OF PROPAGATION: 66%  
 NOM. CONDR D.C.R. @ 20C 25 OHMS/1000 FT  
 NOM. SHIELD D.C.R. @ 20C 6.1 OHMS/1000 FT

FREQUENCY	NOM CROSSTALK	NOM ATTENUATION	UNAVERAGED IMPEDANCE
.772 MHZ	72 DB/1000 FT	5.2 DB/1000 FT	100 +/- 15%
1.0 MHZ	70 DB/1000 FT	5.9 DB/1000 FT	100 +/- 15%
4.0 MHZ	61 DB/1000 FT	11.2 DB/1000 FT	100 +/- 15%
8.0 MHZ	56 DB/1000 FT	15.7 DB/1000 FT	100 +/- 15%
10.0 MHZ	55 DB/1000 FT	17.6 DB/1000 FT	100 +/- 15%
16.0 MHZ	52 DB/1000 FT	22.5 DB/1000 FT	100 +/- 15%
20.0 MHZ	50 DB/1000 FT	25.2 DB/1000 FT	100 +/- 15%
31.25MHZ	48 DB/1000 FT	31.7 DB/1000 FT	100 +/- 15%
62.5 MHZ	43 DB/1000 FT	44.8 DB/1000 FT	100 +/- 15%
100.0MHZ	40 DB/1000 FT	59.5 DB/1000 FT	100 +/- 15%

## II. PHYSICAL CHARACTERISTICS:

TEMPERATURE RANGE: -20 TO 80 DEG. C  
 INSULATION MATERIAL: POLYPROPYLENE  
 SHIELDING: ALUMINUM/MYLAR TAPE  
 LATERALLY APPLIED WITH SHORTING FOLD AND SPIRAL DRAIN - 100% COVERAGE  
 JACKET MATERIAL (COLOR): PVC (LT. GREY OR BLUE)

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MAX. PULLING TENSION:      41 LBS.
MIN. BEND RADIUS:         2.50"
NOM. DIAMETER:            .290"
NOM. CABLE WEIGHT:        35.7 LBS/1000 FEET
APPLIC. SPECIFICATIONS (USA):  UL/NEC TYPE CM
APPLIC. SPECIFICATIONS (EC):  ISO/IEC 11801 CAT.5E

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V. COLOR CODE:

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PAIR #1:  WHITE/BLUE & BLUE,
PAIR #2:  WHITE/ORANGE & ORANGE
PAIR #3:  WHITE/GREEN & GREEN
PAIR #4:  WHITE/BROWN & BROWN

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