# **Detailed Specifications & Technical Data**



# 8441 Multi-Conductor - Audio, Control and Instrumentation Cable



For more Information please call

1-800-Belden1



## **General Description:**

Overall braid, 22 AWG stranded (7x30) TC conductors, PVC insulation, twisted pair, polyester tape + TC braid shield (85% coverage), stranded TC drain wire, PVC jacket.

	-
Physical Characteristics (Overall)	
Conductor AWG:	
# Pairs AWG Stranding Conductor Material	
1 22 7x30 TC - Tinned Copper	
Total Number of Conductors:	2
Insulation Insulation Material:	
Insulation Material Wall Thickness (in.)	
PVC - Polyvinyl Chloride .015	
Outer Shield Outer Shield Material:	
Type         Outer Shield Material         Coverage (%)           Braid         TC - Tinned Copper         85.000	
Outer Shield Drain Wire AWG:	
AWG         Stranding         Drain Wire Conductor Material           22         19x34         TC - Tinned Copper	
Outer Jacket	
Outer Jacket Material Nom. Wall Thickness (in.)	
PVC - Polyvinyl Chloride  .025	
Overall Cable	
Overall Cabling Separator Material:	Polyester Tape
Overall Nominal Diameter:	0.194 in.
Pair	
Pair Color Code Chart: Number Color	
1 Black & Red	
Mechanical Characteristics (Overall)	
Operating Temperature Range:	-20°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2095)
Bulk Cable Weight:	25 lbs/1000 ft.
Max. Recommended Pulling Tension:	49 lbs.
Min. Bend Radius/Minor Axis:	2 in.
Applicable Specifications and Agency Compliance	(Overall)
Applicable Standards & Environmental Programs	
NEC/(UL) Specification:	CMG
CEC/C(UL) Specification:	CMG
AWM Specification:	UL Style 2095 (300 V 80°C)
EU Directive 2011/65/EU (ROHS II):	Yes
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes

# **Detailed Specifications & Technical Data**



#### ENGLISH MEASUREMENT VERSION

## 8441 Multi-Conductor - Audio, Control and Instrumentation Cable

UL Fiem Test:         UL flass FT4 Loading           CSA Fiame Test:         FT4           Comment         No           Plenum (YN):         No           Comment         No           Comment         No           Comment         No           Nom. Characteristic Impedance:         No           Mon. Characterimpedance:         No <th></th> <th></th>		
EU Directive 2003/11/EC (BFR):       Yes         Mit Order #38 (China Rolfs):       Yes         Mit Order #38 (China Rolfs):       Yes         UL Flame Test:       UL Holds FT4 Loading         CSA Flame Test:       No         Plenum (YN):       No         Electrical Characteristics (Overall)       Now.         Nom. Characteristics (Overall)       Now.         Nom. Characteristics (Overall)       Now.         Nom. Characteristics (Overall)       Now.         Nom. Characteristics (Overall)       Now.         Source Conductor to Conductor:       Inductance:         Inductance (Iriff)       Ga         40       Nom. Colaracteristics (Overall)         Nom. Capacitance Conductor to Shield:       Capacitance (Griff)         51       Capacitance (Griff)         63       Shield:         Capacitance (Griff)       Shield:         Capacitance (Griff)       Shield:         Capacitance (Griff)       Shield:         Capacitance Statance:       Capacitance (Griff)<	EU RoHS Compliance Date (mm/dd/yyyy):	04/01/2005
CA Prop 85 (CJ for Wire & Cable):         Yes           Mill Order #39 (China RotHS):         Yes           Flame Test         UL1685 FT4 Loading           USA Flame Test:         UL1685 FT4 Loading           CSA Flame Test:         UL1685 FT4 Loading           Plenum (Y/N):         No           Plenum (Y/N):         No           Electrical Characteristics (Overall)         No           Stanzetristic impedance:         Impedance:           Impedance (DMM)         Stanzetristic impedance:         Stanzetristic impedance:           Impedance (DMM)         Stanzetristic impedance:         Stanzetristic impedance:           Impedance (DMM)         Stanzetristic impedance:         Stanzetristic impedance:           Inductance:         Impedance (DMM)         Stanzetristic impedance:           Oraclitance Conductor to Conductor:         CEpacitance Conductor to Conductor:         CEpacitance (DMM)           Stanzetristic impedance:         DCR 20'C (Ohm/1000 ft)         Stanzetristic impedance:           Stanzetristic impedance:         DCR 20'C (Ohm/1000 ft)         Stanzetristic impedance:         Stanzetristic impedance:           Stanzetristic impedance:         DCR 20'C (Ohm/1000 ft)         Stanzetristic impedance:         Stanzetristic impedance:           Stanzetristic impedance:         DCR 20'C (Ohm/1000	EU Directive 2002/96/EC (WEEE):	Yes
MII Order #39 (China RoHS):         Yes           Flame Test         UL 1685 FT4 Loading           GSA Flame Test:         FT4           Plenum (YiN):         No           Electrical Charactoristics (Overall)         No           Nom. Characteristic impedance:         Impedance (MHT)           0.20         Impedance (MHT)<	EU Directive 2003/11/EC (BFR):	Yes
Fiam Test UL Flame Test: UL flame Test: UL flame Test: UL flame Test: FT4 Penum/Non-Plenum Penum (Y/N): No Celectrical Characteristics (Overall) Nom. Characteristics (Overall) Nom. Characteristic Impedance: Inductance Inductance Inductance (Inff) 3.20 Nom. Capacitance (pf/f) 4.5 Nom. Capacitance (pf/f) 3.5 Nom. Conductor DC Resistance: DCR 202C (Ohm/1000 f) 1.6.5 Nomial Outer Shield DC Resistance: DCR 202C (Ohm/1000 f) 5 3.5 Nomial Outer Shield DC Resistance: DCR 202C (Ohm/1000 f) 5 3.5 Nomial Outer Shield DC Resistance: DCR 202C (Ohm/100 f) 5 3.5 Nomial Outer Shield DC Resistance: Commin Outer Shield DC Resistance: Commin Outer Shield DC Resistance: Commin Outer Shield DC	CA Prop 65 (CJ for Wire & Cable):	Yes
UL Fiem Test:         UL flass FT4 Loading           CSA Fiame Test:         FT4           Comment         No           Plenum (YN):         No           Comment         No           Comment         No           Comment         No           Nom. Characteristic Impedance:         No           Mon. Characterimpedance:         No <th>MII Order #39 (China RoHS):</th> <th>Yes</th>	MII Order #39 (China RoHS):	Yes
CSA Flame Tost:       FT4         Plenum/Non-Plenum       No         Plenum/YiNp:       No         Electrical Characteristics (Overall)       Nom. Characteristics (Overall)         Nom. Inductance:       Impedance:         Inductance (uiffil)       0.20         Ozapacitance (pffil)	Flame Test	
Plenum (Non-Plenum         Plenum (YN):       No         Status       Nom. Characteristic (Overall)         Nom. Characteristic Impedance:       Impedance (Ofm)         45       Nom. Inductance:         Inductance (PFff)       Nom. Capacitance Conductor to Conductor:         Capacitance (PFff)       Nom. Capacitance (PFff)         36       Nom. Capacitance (Pfff)         37       Nom. Capacitance (Pfff)         30.V PMS (UL AVM Style 2005)       Nom. Capacitance (Pfff)         30.V PMS (UL AVM Style 2005)       Nom. Cap	UL Flame Test:	UL1685 FT4 Loading
Plenum (YN):         No           Dectrical Characteristic (Overall)           Nom: Characteristic Impedance:           Impedance (Ohm)           45           Nom: Inductance:           Impedance (Ohm)           0.20           Nom: Capacitance Conductor to Conductor:           Capacitance (pFrif)           43           Nom: Capacitance Conductor & Shield:           Capacitance (pFrif)           43           Nom: Capacitance (pFrif)           45           Nom: Capacitance (pFrif)           46           Nom: Capacitance (pFrif)           47           48           Nom: Capacitance (pFrif)           49           40           10.5           Nom: Capacitance (pFrif)           46           20 Cr (Dhn/1000 ft)           15.5           Nominal Uuter Shield De Resistance:           DCR 20 20 * (Dhn/1000 ft)           30 V PKNS (UL ANM Style 2035)           Mar. Recommended Current:           Viriage           30 Amps per conductor 20 * C	CSA Flame Test:	FT4
Electrical Characteristics (Overall) Nom. Characteristic Impedance: Impedance (Ohm) 45 Nom. Inductance: Inductance (µf/f) 0.20 Nom. Capacitance (µf/f) 49 Nom. Capacitance Conductor to Conductor: Capacitance (µf/f) 49 Nom. Capacitance (µf/f) 5 Nom. Capacitance (µf/f) 7 Nom. Capacita	Plenum/Non-Plenum	
Nom. Characteristic Impedance:   Impedance (Ohm)   45   Nom. Inductance:   Inductance (uH/ff)   0.20   Nom. Capacitance Conductor to Conductor:   Capacitance (pF/ft)   49   Nom. Sepacitance (pF/ft)   86   Nom. Conductor DC Resistance:   DCR @ 20°C (Ohm/1000 ft)   16.5   Nominal Outer Shield DC Resistance:   DCR @ 20°C (Ohm/1000 ft)   5   300 Y RMS (UL AVMS Isyle 2005)   Max. Recommended Current:   Current   2.9 Amps per conductor @ 25°C	Plenum (Y/N):	No
Nom. Characteristic Impedance:   Impedance (Ohm)   45   Nom. Inductance:   Inductance (uH/ff)   0.20   Nom. Capacitance Conductor to Conductor:   Capacitance (pF/ft)   49   Nom. Sepacitance (pF/ft)   86   Nom. Conductor DC Resistance:   DCR @ 20°C (Ohm/1000 ft)   16.5   Nominal Outer Shield DC Resistance:   DCR @ 20°C (Ohm/1000 ft)   5   300 Y RMS (UL AVMS Isyle 2005)   Max. Recommended Current:   Current   2.9 Amps per conductor @ 25°C	Electrical Characteristics (Overall)	
Impedance (Ohm)         45         Nom. Inductance:         Inductance (uH/H)         0.20         Nom. Capacitance Conductor to Conductor:         Capacitance (pF/ft)         49         49         20         Capacitance (pF/ft)         86         Nom. Capacitance (pF/ft)         86         Nom. Conductor DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Source Sou		
45         Nom. Inductance (µH/ft)         0.20         Nom. Capacitance Conductor to Conductor:         Capacitance Conductor to Conductor & Shield:         Capacitance (pF/ft)         49         Nom. Capacitance (pF/ft)         86         DCR @ 20°C (Ohm/1000 ft)         16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Voltage         300 V RMS (UL AWM Style 2095)		
Nom. Inductance (µH/ft)   0.20   Nom. Capacitance conductor to Conductor:   Capacitance (pF/ft)   49   Mom. Capacitance cond. to Other Conductor & Shield:   Capacitance (pF/ft)   86   BCR @ 20°C (Ohm/1000 ft)   16.5   Sominal Outer Shield DC Resistance:   DCR @ 20°C (Ohm/1000 ft)   5   300 V RMS (UL AWM Style 2005)   Max. Recommended Current:   Current   2.9 Amps per conductor @ 25°C		
Inductance (µH/t)         0.20         Nom. Capacitance Conductor to Conductor:         Capacitance (PF/t)         49         Nom. Capacitance (pF/ft)         86         Nom. Conductor DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AVMA Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C		
0.20         Nom. Capacitance Conductor to Conductor:         Capacitance (pF/ft)         49         Nom. Capacitance (pF/ft)         86         Nom. Conductor DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         16.5         Nomial Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C		
Nom. Capacitance (pF/ft)   49   Nom. Capacitance cond. to Other Conductor & Shield:   Capacitance (pF/ft)   86   Nom. Conductor DC Resistance:   DCR @ 20°C (Ohm/1000 ft)   16.5   DCR @ 20°C (Ohm/1000 ft)   5   Max. Operating Voltage - UL:   Voltage   300 V RMS (UL AWM Style 2095)   Max. Recommended Current:   Current   2.9 Amps per conductor @ 25°C		
Capacitance (pF/ft)         49         Nom. Capacitance Cond. to Other Conductor & Shield:         Capacitance (pF/ft)         86         Nom. Conductor DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	0.20	
Capacitance (pF/ft)         49         Nom. Capacitance Cond. to Other Conductor & Shield:         Capacitance (pF/ft)         86         Nom. Conductor DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	Nom. Capacitance Conductor to Conductor:	
Capacitance (pF/ft)         86         Nom. Conductor DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	Capacitance (pF/ft)	
Capacitance (pF/ft)         86         Nom. Conductor DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	Nom. Capacitance Cond. to Other Conductor & Shield:	
DCR @ 20°C (Ohm/1000 ft)         16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	Capacitance (pF/ft)	
16.5         Nominal Outer Shield DC Resistance:         DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	Nom. Conductor DC Resistance:	
DCR @ 20°C (Ohm/1000 ft)         5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C		
5         Max. Operating Voltage - UL:         Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	Nominal Outer Shield DC Resistance:	
Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C		
Voltage         300 V RMS (UL AWM Style 2095)         Max. Recommended Current:         Current         2.9 Amps per conductor @ 25°C	Max. Operating Voltage - UL:	
Current 2.9 Amps per conductor @ 25°C	Voltage	
Current 2.9 Amps per conductor @ 25°C	Max. Recommended Current:	
2.9 Amps per conductor @ 25°C		
Put Ups and Colors:		
	Put Ups and Colors:	

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8441 010U1000	1,000 FT	27.000 LB	BLACK		2 #22 PVC SH PVC
8441 010U500	500 FT	14.000 LB	BLACK		2 #22 PVC SH PVC
8441 010100	100 FT	3.300 LB	BLACK		2 #22 PVC SH PVC
8441 0101000	1,000 FT	27.000 LB	BLACK	С	2 #22 PVC SH PVC
8441 010500	500 FT	14.000 LB	BLACK	С	2 #22 PVC SH PVC
8441 0105000	5,000 FT	135.000 LB	BLACK		2 #22 PVC SH PVC

Notes:

C = CRATE REEL PUT-UP.

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