# **Detailed Specifications & Technical Data**



METRIC MEASUREMENT VERSION

## 8641 Multi-Conductor - Single-Pair Cable

For more Information please call

1-800-Belden1



### **General Description:**

24 AWG stranded (7x32) TC conductors, polyethylene insulation, twisted pair, overall Beldfoil shield (100% coverage), 24 AWG stranded TC drain wire, PVC jacket.

Physical Characteristics (Overall)	·
Conductor	
AWG:	
# Pairs         AWG         Stranding         Conductor Material           1         24         7x32         TC - Tinned Copper	
Total Number of Conductors:	2
Insulation Insulation Material:	
Insulation Material Wall Thickness (mm)	
PE - Polyethylene 0.432	
Outer Shield Outer Shield Material:	
Outer Shield Trade Name Type Outer Shield Material	Coverage (%)
Beldfoil® Tape Aluminum Foil-Polyester Tape	e 100
Outer Shield Drain Wire AWG:	
AWG         Stranding         Drain Wire Conductor Material           24         7x32         TC - Tinned Copper	
Outer Jacket Outer Jacket Material:	
Outer Jacket Material Nom. Wall Thickness (mm)	
PVC - Polyvinyl Chloride 0.635	
Overall Cable	
Overall Nominal Diameter:	4.267 mm
Overall Nominal Diameter: Pair Pair Color Code Chart:           Number         Color           1         Black & Clear	4.267 mm
Pair Pair Color Code Chart: Number Color 1 Black & Clear	4.267 mm
Pair Pair Color Code Chart: Number Color	4.267 mm -20°C To +80°C
Pair Pair Color Code Chart: Number Color 1 Black & Clear Mechanical Characteristics (Overall)	
Pair Pair Color Code Chart: Number Color 1 Black & Clear Mechanical Characteristics (Overall) Operating Temperature Range:	-20°C To +80°C
Pair Pair Color Code Chart: Number Color 1 Black & Clear Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating:	-20°C To +80°C 60°C (UL AWM Style 2092)
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:         Applicable Specifications and Agency Compliance         Applicable Standards & Environmental Programs	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm e (Overall)
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:         Applicable Specifications and Agency Compliance         Applicable Standards & Environmental Programs         NEC/(UL) Specification:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm e (Overall) CM
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:         Applicable Specifications and Agency Compliance         Applicable Standards & Environmental Programs         NEC/(UL) Specification:         CEC/C(UL) Specification:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm e (Overall) CM CM
Pair Pair Color Code Chart:          Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:         Applicable Specifications and Agency Compliance         Applicable Standards & Environmental Programs         NEC/(UL) Specification:         CEC/C(UL) Specification:         AWM Specification:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm e (Overall) CM CM CM UL Style 2092 (300 V 60°C)
Pair         Pair Color Code Chart:         Number Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:         Applicable Specifications and Agency Compliance         Applicable Standards & Environmental Programs         NEC/(UL) Specification:         CEC/C(UL) Specification:         AWM Specification:         EU Directive 2011/65/EU (ROHS II):	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm e (Overall) CM CM CM UL Style 2092 (300 V 60°C) Yes
Pair         Pair Color Code Chart:         Number       Color         1       Black & Clear         Mechanical Characteristics (Overall)         Operating Temperature Range:         UL Temperature Rating:         Bulk Cable Weight:         Max. Recommended Pulling Tension:         Min. Bend Radius/Minor Axis:         Applicable Specifications and Agency Compliance         Applicable Standards & Environmental Programs         NEC/(UL) Specification:         CEC/C(UL) Specification:         EU Directive 2011/65/EU (ROHS II):         EU CE Mark:	-20°C To +80°C 60°C (UL AWM Style 2092) 17.858 Kg/Km 48.930 N 44.450 mm e (Overall) CM CM CM CM UL Style 2092 (300 V 60°C) Yes Yes

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## 8641 Multi-Conductor - Single-Pair Cable

EU Directive 2002/96/EC (WEEE):	Yes				
EU Directive 2003/11/EC (BFR):	Yes				
CA Prop 65 (CJ for Wire & Cable):	Yes				
MII Order #39 (China RoHS):	Yes				
Flame Test					
UL Flame Test:	UL1685 UL Loading				
Plenum/Non-Plenum					
Plenum (Y/N):	No				
Plenum Number:	88641, 82641				
ectrical Characteristics (Overall)					
Nom. Characteristic Impedance:					
Impedance (Ohm) 80					
Nom. Inductance:					
Inductance (µH/m) 0.72182					
Nom. Capacitance Conductor to Conductor:					
Capacitance (pF/m)					
72.182					
Nom. Capacitance Cond. to Other Conductor & Shield:					
Capacitance (pF/m) 137.802					
Nom. Conductor DC Resistance:					
DCR @ 20°C (Ohm/km) 82.025					
Nominal Outer Shield DC Resistance:					
DCR @ 20°C (Ohm/km) 47.9026					
Max. Operating Voltage - UL:					
Voltage 300 V RMS (UL AWM Style 2092)					
Max. Recommended Current:					
Current 2.2 Amps per conductor @ 25°C					
hit line and Calara					

#### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8641 060U1000	305 MT	6.350 KG	CHROME		1 #24 FS PR PE PVC
8641 060U500	152 MT	3.402 KG	CHROME		1 #24 FS PR PE PVC
8641 060100	30 MT	0.907 KG	CHROME		1 #24 FS PR PE PVC
8641 0601000	305 MT	6.350 KG	CHROME	С	1 #24 FS PR PE PVC
8641 060500	152 MT	3.175 KG	CHROME		1 #24 FS PR PE PVC
8641 0605000	1,524 MT	29.484 KG	CHROME		1 #24 FS PR PE PVC

Notes: C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 08-14-2012

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