

Detailed Specifications & Technical Data



METRIC MEASUREMENT VERSION

9877 Multi-Conductor - Audio, Control and Instrumentation Cable



For more Information
please call

1-800-Belden1



General Description:

20 AWG stranded (7x28) TC conductors, polypropylene insulation, twisted pairs, individually shielded w/Beldfoil® (100% coverage), 22 AWG stranded TC drain wire, overall PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
12	20	7x28	TC - Tinned Copper

Total Number of Conductors: 24

Insulation

Insulation Material:

Insulation Material	Wall Thickness (mm)
PP - Polypropylene	0.381

Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil® (Z-Fold®)	Tape	Aluminum Foil-Polyester Tape	100

Inner Shield Drain Wire AWG:

AWG
22

Inner Shield Drain Wire Stranding: 19x34

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	1.270

Overall Cable

Overall Nominal Diameter: 15.672 mm

Pair

Pair Color Code Chart:

Number	Color
1	Black & Red
2	Black & White
3	Black & Green
4	Black & Blue
5	Black & Yellow
6	Black & Brown
7	Black & Orange
8	Red & White
9	Red & Green
10	Red & Blue
11	Red & Yellow
12	Red & Brown

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +80°C

UL Temperature Rating: 80°C (UL AWM Style 2919)

Bulk Cable Weight: 290.199 Kg/Km

Max. Recommended Pulling Tension: 1957.208 N

Min. Bend Radius/Minor Axis: 158.750 mm

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Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/UL Specification:	CM
CEC/C(UL) Specification:	CM
AWM Specification:	UL Style 2919 (30 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
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
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
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
50

Nom. Inductance:

Inductance (μH/m)
0.59058

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)
98.43

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m)
180.455

Nominal Velocity of Propagation:

VP (%)
66

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
34.4505

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 37.075 Ohm/km

Max. Operating Voltage - UL:

Voltage	Description
30 V RMS	UL AWM Style 2919
300 V RMS	CM

Max. Recommended Current:

Current
2.0 Amps per conductor @ 25°C

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9877 060100	100 FT	21.500 LB	CHROME	C	12 #20 FS PR PP PVC
9877 0601000	1,000 FT	211.000 LB	CHROME	C	12 #20 FS PR PP PVC
9877 060500	500 FT	106.500 LB	CHROME	C	12 #20 FS PR PP PVC

Notes:

C = CRATE REEL PUT-UP.

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