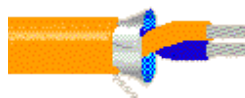
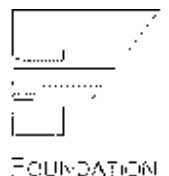


## 3077F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable



For more Information  
please call

1-800-Belden1

**General Description:**

22 AWG stranded (7x30) tinned copper conductors, polyolefin insulation, Beldfoil® shield (100% coverage), tinned copper drain wire, PVC jacket.

**Physical Characteristics (Overall)****Conductor****AWG:**

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
1	22	7x30	TC - Tinned Copper	0.762

Total Number of Conductors: 2

**Insulation****Insulation Material:**

Insulation Material
PO - Polyolefin

**Outer Shield****Outer Shield Material:**

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

**Outer Shield Drain Wire AWG:**

AWG	Stranding	Drain Wire Conductor Material
20	7x28	TC - Tinned Copper

**Outer Jacket****Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

**Overall Cable**

Overall Nominal Diameter: 4.978 mm

**Pair****Pair Color Code Chart:**

Number	Color
1	Blue & Orange

**Pair Lay Length & Direction:**

Lay Length (mm)
38.1

**Mechanical Characteristics (Overall)**

Operating Temperature Range: -30°C To +105°C

UL Temperature Rating: 105°C

Bulk Cable Weight: 26.788 Kg/Km

Max. Recommended Pulling Tension: 120.101 N

Min. Bend Radius/Minor Axis: 55.880 mm

## 3077F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

NEC/(UL) Specification:	CM, ITC, PLTC
NEC Articles:	725, 727, 800
CEC/C(UL) Specification:	CM
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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## Surface Printing (Overall)

## Electrical Characteristics (Overall)

## Unaveraged Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
	.03125			100

## Nom. Inductance:

Inductance (µH/m)
0.6562

## Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
144.364

## Nom. Mutual Capacitance:

Capacitance (pF/m)
77.1035

## Maximum Capacitance Unbalance:

Capacitance (pF/m)
3.9372

## Nominal Velocity of Propagation:

VP (%)
66

## Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
56.1051

Ind. Pair Nominal Shield DC Resistance @ 20  
Deg. C: 37.403 Ohm/km

## Nom. Attenuation:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100m)
	.039			0.45934

## Max. Attenuation:

()	Freq. (MHz)	Attenuation (dB/100m)
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**3077F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable**

0.498712	0.039	0.499
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**Max. Operating Voltage - UL:**

Voltage
300 V RMS

**Max. Recommended Current:**

Description	Current
Per Conductor	2.5 Amps

**Other Electrical Characteristic 2:** 31.25 KBits/sec

**Notes (Overall)**

**Notes:** Tape around pair has shorting fold. CPE & LSOH Jacket optional.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3077F 0031000	305 MT	10.433 KG	ORANGE	C N	TWPR #22 PP FS PVC
3077F 003500	152 MT	4.990 KG	ORANGE	C N	TWPR #22 PP FS PVC

**Notes:**

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

**Test Reports****a) UL**

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

**b) CSA**

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

\* other test data may be available if requested at time of order.

Revision Number: 1    Revision Date: 03-09-2011

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