# **Detailed Specifications & Technical Data**

### METRIC MEASUREMENT VERSION





## 3086A Multi-Conductor - DeviceBus® for Honeywell Smart Distributed System

For more Information please call

1-800-Belden1



## **Description:**

16 and 20 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (data), each pair individually Beldfoil® shielded (100% coverage), PVC jacket

## **Physical Characteristics (Overall)**

### Conductor

### AWG:

# Pairs	AWG	Stranding	<b>Conductor Material</b>	Dia. (mm)
1	16	19x29	TC - Tinned Copper	1.7018
1	20	19x32	TC - Tinned Copper	1.0414

**Total Number of Conductors:** 

4

### Insulation

### **Insulation Material:**

Insulation Material	AWG
, ,	16
FPE - Foam Polyethylene	20

Insulation Resistance:

10000 Mega-Ohm

### **Inner Shield**

### Inner Shield Material:

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
16 AWG Pair	Beldfoil®	Таре	Aluminum Foil-Polyester Tape	100
20 AWG Pair	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

### **Outer Shield**

### **Outer Shield Material:**

<b>Outer Shield Material</b>
Unshielded

### **Outer Shield Drain Wire AWG:**

AWG Stranding		<b>Drain Wire Conductor Material</b>		
20	19x32	TC - Tinned Copper		

### **Outer Jacket**

## **Outer Jacket Material:**

Outer Jacket Material	
PVC - Polyvinyl Chloride	

### **Overall Cable**

Overall Nominal Diameter: 10.109 mm

## Pair

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

Number	Color	
1 (16 AWG)	Blue & Brown	
2 (20 AWG)	Black & White	

### Pair Lay Length & Direction:

Lay Length	(mm)
50.8	

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Mechanical Characteristics (Overall)				
Storage Temperature Range:	-40°C To +80°C			
Operating Temperature Range:	-30°C To +80°C			
UL Temperature Rating:	80°C (UL AWM Style 2464)			
Bulk Cable Weight:	117.270 Kg/Km			
Max. Recommended Pulling Tension:	538.232 N			
Min. Bend Radius/Minor Axis:	101.600 mm			

## **Applicable Specifications and Agency Compliance (Overall)**

## **Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CL2
AWM Specification:	UL Style 2464 (30 V 80°C) (I/II A)
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):	04/01/2005
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
ame Test	

## Fla

UL Flame Test:	UL1685 UL Loading
CSA Flame Test:	FT1

### Plenum/Non-Plenum

Plenum (Y/N): No

## **Electrical Characteristics (Overall)**

## Unaveraged Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
20 AWG Pair Only				120

### Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/m)
20 AWG Pair Only	1			39.372

### Nominal Velocity of Propagation:

Description	VP (%)
20 AWG Pair Only	76

### Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)		
16 AWG	11.8116		
20 AWG	32.81		

## Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 18.0455

### Nom. Attenuation:

Description	Freq. (MHz)	Attenuation (dB/100m)
20 AWG Pair Only	.125	0.59058
	.500	1.14835
	1.0	1.54207

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Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

**Description Current** 16 AWG 7.0 Amps 20 AWG 3.5 Amps

**Notes (Overall)** 

Notes: Mini-Cable (Trunk)

## **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3086A U3R1000	305 MT	39.916 KG	GRAY U3R	С	#20 FS PR, #16 FSPR PVC
3086A U3R500	152 MT	19.731 KG	GRAY U3R	С	#20 FS PR, #16 FSPR PVC

Notes:

C = CRATE REEL PUT-UP.

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