# **Detailed Specifications & Technical Data**



METRIC MEASUREMENT VERSION

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



For more Information please call

1-800-Belden1



#### **General 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       Conductor Material       Dia. (mm)         1       16       19x29       TC - Tinned Copper       1.7018
# Pairs     AWG     Stranding     Conductor Material     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
PVC - Polyvinyl Chloride 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®         Tape         Aluminum Foil-Polyester Tape         100           20 AWG Pair         Beldfoil®         Tape         Aluminum Foil-Polyester Tape         100
Outer Shield Outer Shield Material: Outer Shield Material Unshielded
Outer Shield Drain Wire AWG: AWG Stranding Drain Wire Conductor Material 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:
NumberColor1 (16 AWG)Blue & Brown2 (20 AWG)Black & White
1 (16 AWG) Blue & Brown
1 (16 AWG)       Blue & Brown         2 (20 AWG)       Black & White         Pair Lay Length & Direction:         Lay Length (mm)
1 (16 AWG)       Blue & Brown         2 (20 AWG)       Black & White         Pair Lay Length & Direction:         Lay Length (mm)         50.8
1 (16 AWG)       Blue & Brown         2 (20 AWG)       Black & White         Pair Lay Length & Direction:         Lay Length (mm)         50.8         Mechanical Characteristics (Overall)
1 (16 AWG)       Blue & Brown         2 (20 AWG)       Black & White         Pair Lay Length & Direction:       Lay Length (mm)         50.8
1 (16 AWG)       Blue & Brown         2 (20 AWG)       Black & White         Pair Lay Length & Direction:         Lay Length (mm)       50.8         50.8       -40°C To +80°C         Storage Temperature Range:       -40°C To +80°C         Operating Temperature Range:       -30°C To +80°C

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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 Directive 2011/65/EU (ROHS II):	Yes			
EU CE Mark:	Yes			
EU Directive 2000/53/EC (ELV):	85			
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			
Flame Test				
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. (MH	Hz) Impedance (Ohm)			
20 AWG Pair Only	120			
Nom. Capacitance Conductor to Conductor: Description Freq. (MHz) Start Freq. (MHz) Stop Freq. (MHz)	Hz) Capacitance (pF/m)			
20 AWG Pair Only 1	39.372			
Nominal Velocity of Propagation:				
DescriptionVP (%)20 AWG Pair Only76				
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				
Max. Operating Voltage - UL: Voltage 300 V RMS				
Max. Recommended Current:				
Description Current				
16 AWG         7.0 Amps           20 AWG         3.5 Amps				

#### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3086A U3R1000	1,000 FT	88.000 LB	GRAY U3R	С	#20 FS PR, #16 FSPR PVC
3086A U3R500	500 FT	43.500 LB	GRAY U3R	С	#20 FS PR, #16 FSPR PVC

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C = CRATE REEL PUT-UP.

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