Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

3084F Multi-Conductor - DeviceBus® for ODVA DeviceNet™

For more Information please call

1-800-Belden1

General Description:

22 and 24 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (Data), individually foil shielded (100% coverage) and an overall tinned copper braid (65% coverage), sunlight/oil-resistant PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	# Pairs	AWG	Stranding	Conductor Material
4	1	22	155x44	TC - Tinned Copper
	1	24	105x44	TC - Tinned Copper

Insulation

Insulation Material:

Insulation Material	AWG
PVC - Polyvinyl Chloride	22
FPE - Foam Polyethylene	24

Inner Shield

Inner Shield Material:

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

Inner Shield Drain Wire AWG:

AWG
22

Inner Shield Drain Wire Stranding:	26x36
Inner Shield Drain Wire Conductor Material:	TC - Tinned Copper

Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	TC - Tinned Copper	65

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter:	6.985 mm

Pair

Pair Color Code Chart:

Number	Color
22 AWG Pair	Red & Black
24 AWG Pair	Blue & White

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	61.016 Kg/Km
Max. Recommended Pulling Tension:	289.133 N
Min. Bend Radius/Minor Axis:	69.850 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

CEC/C(UL) Specification:	CMG
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):	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
Other Specification:	ODVA Class 2 Thin

Flame Test

UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4

Suitability

Sunlight Resistance:	Yes
Oil Resistance:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Description	Impedance (Ohm)
24 AWG Pair	120

Nom. Capacitance Conductor to Conductor:

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

Nominal Velocity of Propagation:

Description	VP (%)
24 AWG Pair	75

Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/m)
24 AWG Pair				4.46216

Maximum Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/100 m)
22 AWG	57.4175
24 AWG	91.868

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
10.4992

Max. Attenuation:

()	Description	Freq. (MHz)
0.95149	24 AWG Pair Only	.125
1.6405		.500
2.2967		1.000

Max. Operating Voltage - UL:

Voltage	Description
300 V RMS	CL2, CMG
300 V RMS	C(UL) AWM

Max. Recommended Current:

Current
1.7 Amps per conductor @ 25°C (24 AWG)
4 Amps per conductor @ 24 V per NEC CL2 (Power Pair)

Notes (Overall)

Notes: Hi-Flex. Thin. Flex Test Results: "S-Bend" Flex Test - 4" Diameter Wheels, 2 lbs. tension: 150, 000 Cycles Averaged. +/-90 Degree Flex Test: 2" Diameter, 2 lbs. tension - 8500 Cycles Averaged. Flex tests were conducted at less than the recommeded cable minimum bend radius. Actual cable performance will depend on the individual application. Meter marks on jacket to aid users in installation.

3084F Multi-Conductor - DeviceBus® for ODVA DeviceNet™

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3084F T5U1000	1,000 FT	45.000 LB	GRAY T5U	C	2 #22, 2 #24 SH PVC
3084F T5U2000	2,000 FT	90.000 LB	GRAY T5U	C	2 #22, 2 #24 SH PVC
3084F T5U500	500 FT	22.000 LB	GRAY T5U	C N	2 #22, 2 #24 SH PVC
3084F T5U5000	5,000 FT	220.000 LB	GRAY T5U	C Z	2 #22, 2 #24 SH PVC

Notes:
C = CRATE REEL PUT-UP.
N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.
Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

Revision Number: 1 Revision Date: 08-17-2011