Detailed Specifications & Technical Data



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3084F Paired - DeviceBus® for ODVA DeviceNetTM



Description:

300V Class 2 Thin, 22 and 24 AWG stranded tinned copper conductors, PVC insulation (power), FRFPE insulation (Data), 100% individually foil shielded and an overall 65% tinned copper braid, drain wire, sunlight/oil-resistant PVC jacket.

PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs		2		
Number of Conductors		4		
AWG :				
Number of Pairs	AWG	Stranding	Conductor Material	Conductor Diameter (in.)
1	22	154x44	TC - Tinned Copper	
1	24	105x44	TC - Tinned Copper	
Stranding		154x44, 105x44		
Conductor Material		TC - Tinned Copper		
INSULATION:				

Insulation Material

PVC - Polyvinyl Chloride, FPE - Foam Polyethylene

Insulation Material (Multi-AWG) :

AWG	Layer Number	Material Trade Name	Material	Wall Thickness (in.)	Diameter (in.)
22			PVC - Polyvinyl Chloride		
24			FPE - Foam Polyethylene		

Pair Color Code Chart :

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

INNER SHIELD:

Inner Shield Type	Tape/Tape
Inner Shield Material :	

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Layer Number/Descri ption	Material Trade Name	Туре	Material	% Coverage (%)	Stranding	Diameter (in.)	Conductor Material		
22 AWG Pair	Beldfoil®	Таре	Aluminum Foil- Polyester Tape	100					
24 AWG Pair	Beldfoil®	Таре	Aluminum Foil- Polyester Tape	100					
Inner Shield % C	overage		100 %						
Inner Shield Drai	n Wire AWG		22						
Inner Shield Drai	n Wire Stranding		26x36	26x36					
Inner Shield Drai	n Wire Conducto	r Material	TC - Tinned	Copper					
OUTER SHIEL	D:								
Outer Shield Typ	e		Braid						
Outer Shield Mat	erial		TC - Tinned	Copper					
Outer Shield %Co	overage		65 %						
OUTER JACKI	ET:								
Outer Jacket Mate	erial		PVC - Polyvi	nyl Chloride					
OVERALL NO	MINAL DIAME	TER:							
Overall Nominal	Diameter		.275 in.						
MECHANICAI	L CHARACTER	ISTICS:							
Operating Tempe	rature Range		-20°C To +75	5°C					
UL Temperature	Rating		75°C	75°C					
Bulk Cable Weig	ht		41 lbs/1000 f	41 lbs/1000 ft.					
Max. Recomment	ded Pulling Tensi	on	65 lbs.	65 lbs.					
Min. Bend Radiu	s (Install)		2.75 in.						
APPLICABLE	SPECIFICATIO	ONS AND AGEN	CY COMPLIAN	CE:					
APPLICABLE	STANDARDS:								
NEC/(UL) Specif	ication		CMG, CL2						
CEC/C(UL) Spec	ification		CMG	CMG					
CSA Specificatio	n		I/II A	I/II A					
Other Specification	on		ODVA Class	2 Thin					
FLAME TEST:									
UL Flame Test			UL1685 FT4	Loading					
CSA Flame Test			FT4						
SUITABILITY:	:								
Sunlight Resistan	ce		Yes						
Oil Resistance			Yes	Yes					

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PLENUM/NON-PLENUM:

Plenum (Y/N)

ELECTRICAL CHARACTERISTICS:

Nom. Characteristic Impedance :				
Description	Nom. Characteristic Impedance (Ohms)			
24 AWG Pair	120			

Nom. Capacitance Conductor to Conductor :

Description	Frequency (kHz)	Start Frequency (kHz)	Nom. Capacitance Conductor to Conductor (pF/ft)
24 AWG Pair	1		12.0

Nominal Velocity of Propagation :

Description	Nominal Velocity of Propagation (%)
24 AWG Pair	75

Maximum Delay :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Maximum Delay (ns/ft)
24 AWG Pair				1.36

Maximum Conductor DC Resistance :

Description	Maximum Conductor DC Resistance @ 20 Deg. C (Ohms/1000 ft)
22 AWG	17.5
24 AWG	28.0

Nominal Outer Shield DC Resistance @ 20 Deg. C 3.2 Ohms/1000 ft

Max. Attenuation (dB/100 ft.) :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Max. Attenuation (dB/100 ft.)
24 AWG Pair Only	.125			.29
	.500			.50
	1.000			.70

Max. Operating Voltage - UL :			
UL Voltage	UL		
300 V RMS	CL2, CMG		
300 V RMS	C(UL) AWM		

Max. Recommended Current

1.7 Amps per conductor @ 25°C (24 AWG), 5 Amps per conductor @ 25°C (22 AWG)

NOTES:

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.

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PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
3084F T5U1000	2 #22, 2 #24 SH PVC	1000	45	GRAY T5U	C
3084F T5U2000	2 #22, 2 #24 SH PVC	2000	90	GRAY T5U	С
3084F T5U500	2 #22, 2 #24 SH PVC	500	23.5	GRAY T5U	C N

C = CRATE REEL PUT-UP.

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

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