

## Description:

15 and 18 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (data), individually foil shielded (100% coverage) plus an overall tinned copper braid (65% coverage), sunlight/oil-resistant PVC jacket.

## Physical Characteristics (Overall)

### Conductor

#### AWG:

# Pairs	AWG	Stranding	Conductor Material
1	15	19x28	TC - Tinned Copper
1	18	19x30	TC - Tinned Copper

### Insulation

#### Insulation Material:

Insulation Material	AWG
PVC - Polyvinyl Chloride	15
FPE - Foam Polyethylene	18

### Inner Shield

#### Inner Shield Material:

Layer #	Type	Inner Shield Material	Coverage (%)
15 AWG Pair	Tape	Aluminum Foil-Polyester Tape	100
18 AWG Pair	Tape	Aluminum Foil-Polyester Tape	100

### Outer Shield

#### Outer Shield Material:

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

#### Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
18	19x30	TC - Tinned Copper

### Outer Jacket

#### Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.060

### Overall Cabling

Overall Nominal Diameter: 0.480 in.

### Pair

#### Pair Color Code Chart:

Number	Color
1 (15 AWG)	Red & Black
2 (18 AWG)	Blue & White

## Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

UL Temperature Rating: 75°C (UL AWM Style 20201)

## 3082A Multi-Conductor - DeviceBus® for ODVA DeviceNet™

<b>Bulk Cable Weight:</b>	108 lbs/1000 ft.
<b>Max. Recommended Pulling Tension:</b>	190 lbs.
<b>Min. Bend Radius (Install)/Minor Axis:</b>	4.600 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

<b>NEC/(UL) Specification:</b>	CMG, PLTC-ER
<b>CEC/C(UL) Specification:</b>	CMG
<b>AWM Specification:</b>	UL Style 20201 (600 V 75°C)
<b>CSA Specification:</b>	I/II A
<b>EU CE Mark:</b>	Yes
<b>EU Directive 2000/53/EC (ELV):</b>	Yes
<b>EU Directive 2002/95/EC (RoHS):</b>	Yes
<b>EU RoHS Compliance Date (mm/dd/yyyy):</b>	04/01/2005
<b>EU Directive 2002/96/EC (WEEE):</b>	Yes
<b>EU Directive 2003/11/EC (BFR):</b>	Yes
<b>CA Prop 65 (CJ for Wire &amp; Cable):</b>	Yes
<b>MII Order #39 (China RoHS):</b>	Yes
<b>Other Specification:</b>	ODVA Class 2 Thick

#### Flame Test

<b>UL Flame Test:</b>	UL1685 FT4 Loading
<b>CSA Flame Test:</b>	FT4

#### Suitability

<b>Sunlight Resistance:</b>	Yes
<b>Oil Resistance:</b>	Yes

#### Plenum/Non-Plenum

<b>Plenum (Y/N):</b>	No
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### Electrical Characteristics (Overall)

#### Unaveraged Impedance:

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

#### Nom. Inductance:

Description	Inductance (µH/ft)
15 AWG Pair Only	.174

#### Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/ft)
18 AWG Pair Only	1			12.0

#### Nominal Velocity of Propagation:

Description	VP (%)
18 AWG Pair Only	75

#### Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/ft)
18 AWG Pair Only				1.36

#### Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)
15 AWG	3.6
18 AWG	6.9

## 3082A Multi-Conductor - DeviceBus® for ODVA DeviceNet™

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)
1.8

**Max. Attenuation:**

()	Description	Freq. (MHz)	Attenuation (dB/100 ft.)
.13	18 AWG Pair Only	0.125	0.130
.25		0.500	0.250
.40		1.000	0.360

**Max. Operating Voltage - UL:**

Voltage	Description
300 V RMS	C(UL) AWM

**Max. Recommended Current:**

Description	Current
15 AWG	8.0 Amps
18 AWG	5.0 Amps

### Notes (Overall)

**Notes:** Thick. Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Associatio, Inc. Trademark.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3082A T5U1000	1,000 FT	138.000 LB	GRAY T5U	C	2 #15, 2 #18 SHLD PVC
3082A T5U2000	2,000 FT	280.000 LB	GRAY T5U	C	2 #15, 2 #18 SHLD PVC
3082A T5U500	500 FT	71.000 LB	GRAY T5U	C	2 #15, 2 #18 SH PVC
3082A 0021000	1,000 FT	138.000 LB	RED	C	2 #15, 2 #18 SHLD FRPVC

**Notes:**

C = CRATE REEL PUT-UP.


# Industrial Data Solutions® — Industrial Data

DeviceBus® for ODVA DeviceNet™


Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

**300V Class 2 Thick • 15 and 18 AWG Stranded TC Cond. • Individually Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)**

**PVC Insulation (Power) • FPE Insulation (Data) • Sunlight- and Oil-resistant PVC Jacket (Available in Gray or Red)**


Thick 75°C 	<b>3082A</b>	NEC:	500†	152.4	71.0	32.2	(2)15 AWG TC	100%	Power Pair:	.480	12.19	—	—	—	—	—	—	—
		CMG,	1000	304.8	138.0	62.6	(19x28)	Individual	Red&Black									
		PLTC-ER	2000†	609.6	280.0	127.0	3.6Ω/M'	Foil										
		CEC:					11.8Ω/km	+ Overall										
		CMG FT4				(2)18 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125	.13	.43	
						(19x30)	TC Braid	Blue&White							.500	.25	.82	
						6.9Ω/M'	1.8Ω/M'								1.000	.36	1.18	
						22.6Ω/km	5.9Ω/km											

†500 ft. and 2000 ft. put-ups not available in Red.  
UL AWM 20201 (600V) • C(UL) AWM I/II A  
18 AWG stranded (19x30) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-A

High-Flex Thick 75°C 	<b>3082F</b>	NEC:	500†	152.4	72.5	32.9	(2)15 AWG TC	100%	Power Pair:	.480	12.19	—	—	—	—	—	—	—
		CMG,	1000	304.8	140.0	63.5	(65x33)	Individual	Red&Black									
		PLTC-ER	2000†	609.6	284.0	128.8	3.6Ω/M'	Foil										
		CEC:					11.8Ω/km	+ Overall										
		CMG FT4				(2)18 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125	.13	.43	
						(65x36)	TC Braid	Blue&White							.500	.25	.82	
						6.9Ω/M'	1.8Ω/M'								1.000	.36	1.18	
						22.6Ω/km	5.9Ω/km											

†500 ft. and 2000 ft. put-ups not available in Red.  
UL AWM 20201 (600V) • C(UL) AWM I/II A  
18 AWG stranded (65x36) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-A


**PVC Insulation (Power) • FPE Insulation (Data) • Yellow CPE Jacket**

Thick 75°C 	<b>3083A</b>	NEC:	1000	304.8	137.0	62.1	(2)15 AWG TC	100%	Power Pair:	.475	12.07	—	—	—	—	—	—	—
		CMG, PLTC	2000	609.6	278.0	126.1	(19x28)	Individual	Red&Black									
		CEC:					3.6Ω/M'	Foil										
		CMG FT4					11.8Ω/km	+ Overall										
						(2)18 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125	.13	.43	
						(19x30)	TC Braid	Blue&White							.500	.25	.82	
						6.9Ω/M'	1.8Ω/M'								1.000	.36	1.18	
						22.6Ω/km	5.9Ω/km											


18 AWG stranded (19x30) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-A

**300V Class 2 Thin • 22 and 24 AWG Stranded TC Conductors • Individ. Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)**

**PVC Insulation (Power) • FPE Insulation (Data) • Gray Sunlight- and Oil-resistant PVC Jacket**


Thin 75°C 	<b>3084A</b>	NEC:	500	152.4	22.0	10.0	(2)22 AWG TC	100%	Power Pair:	.280	7.11	—	—	—	—	—	—	—
		CL2 CMG	1000†	304.8	47.0	21.3	(19x34)	Individual	Red&Black									
		CEC:	2000	609.6	96.0	43.6	17.5Ω/M'	Foil										
		CMG FT4					57.4Ω/km	+ Overall										
						(2)24 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125*	.29*	.95*	
						(19x36)	TC Braid	Blue&White							.500*	.50*	1.64*	
						91.9Ω/km	10.5Ω/km								1.000*	.70*	2.30*	

†1000 ft. put-up also available in Red.  
22 AWG stranded (19x34) tinned copper drain wire. • C(UL) AWM I/II A  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-C

High-Flex Thin 75°C 	<b>3084F</b>	NEC:	500	152.4	22.0	10.0	(2)22 AWG TC	100%	Power Pair:	.275	6.99	—	—	—	—	—	—	—
		CL2 CMG	1000	304.8	47.0	21.3	(154x44)	Individual	Red&Black									
		CEC:	2000	609.6	96.0	43.6	17.5Ω/M'	Foil										
		CMG FT4					57.4Ω/km	+ Overall										
						(2)24 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125*	.29*	.95*	
						(105x44)	TC Braid	Blue&White							.500*	.50*	1.64*	
						91.9Ω/km	10.5Ω/km								1.000*	.70*	2.30*	

C(UL) AWM I/II A  
22 AWG stranded (26x36) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-C

**PVC Insulation (Power) • FPE Insulation (Data) • Yellow CPE Jacket**

Thin 75°C 	<b>3085A</b>	NEC:	500	152.4	25.0	11.4	(2)22 AWG TC	100%	Power Pair:	.280	7.11	—	—	—	—	—	—	—
		CL2 CMG	1000	304.8	47.0	21.4	(19x34)	Individual	Red&Black									
		CEC:	2000	609.6	96.0	43.6	17.5Ω/M'	Foil										
		CMG FT4					57.4Ω/km	+ Overall										
						(2)24 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125*	.29*	.95*	
						(19x36)	TC Braid	Blue&White							.500*	.50*	1.64*	
						91.9Ω/km	10.5Ω/km								1.000*	.70*	2.30*	

22 AWG stranded (19x34) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-C

DCR = DC Resistance • FPE = Foam Polyethylene • PLTC-ER = Power Limited Tray Cable - Exposed Run per 2005 NEC Article 725 • TC = Tinned Copper

\*These values are Maximum Attenuation.

ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark.

