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DeviceBus® for ODVA DeviceNet™

DeviceNet Communications Rate Table

Communications Rate	Maximum Distance																			
	3082A		3082F		3082K		3083A		3084F		3084A/3085A		7895A		7896A		7897A		7900A	
	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m
125 Kbps	1640	500	1640	500	1378	420	1640	500	328	100	328	100	984	300	1378	420	1640	500	328	100
250 Kbps	820	250	820	250	656	200	820	250	328	100	328	100	820	250	656	200	820	250	328	100
500 Kbps	328	100	328	100	246	75	328	100	328	100	328	100	328	100	328	100	328	100	328	100

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

600V Class 1 Thick • 15 and 18 AWG Stranded TC Conductors • Individually Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)

PVC/Nylon Insulation (Power) • **FEP Insulation** (Data) • **Gray Sunlight/Oil-resistant PVC Jacket**

High Velocity Thick 600V 75°C	**7897A**	NEC: TC-ER	500 1000 2000	152.4 304.8 609.6	69.5 135.0 274.0	31.6 61.3 124.4	(2)15 AWG TC (19x28) 3.6Ω/M′ 11.8Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M′ 5.9Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.460	11.7	120	75%	12.0	39.4	.125 .500 1.000	.13 .25 .40	.43 .82 1.31
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

600V Class 1 ODVA Cable V • 16 and 18 AWG Stranded TC Cond. • Individ. Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)

PVC/Nylon Insulation (Power) • **F-R Polypropylene Insulation** (Data) • **Gray Sunlight/Oil-resistant PVC Jacket**

600V 75°C	**7896A**	NEC: TC-ER	500 1000 2000	152.4 304.8 609.6	89.0 168.0 340.0	40.4 76.2 154.2	(2)16 AWG TC (19x29) 4.9Ω/M′ 16.1Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M′ 5.9Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.525	13.34	120	64%	14.7	48.2	.125 .500 1.000	.13 .25 .40	.43 .82 1.31
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

C(UL) AWM I/II A/B
16 AWG stranded (19x29) tinned copper drain wire.
Meter marks on jacket to aid users in installation.
Allen-Bradley P/N 1485 CPI-A

600V Class 1 ODVA Cable IV • 16 and 18 AWG Stranded Tinned Copper Conductors • Unshielded

PVC/Nylon Insulation (Power) • **F-R Polypropylene Insulation** (Data) • **Gray Sunlight/Oil-resistant PVC Jacket**

Drop 600V 75°C	**7900A**	NEC: TC-ER CEC: FT1	500 1000	152.4 304.8	51.0 105.0	23.1 47.6	(2)16 AWG TC (19x29) 4.9Ω/M′ 16.1Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	Unshielded	Power Pair: Red&Black Data Pair: Blue&White	.430	10.92	120	64%	14.7	48.2	.125 .500 1.000	.13 .25 .40	.43 .82 1.31
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

C(UL) AWM I/II A/B
Meter marks on jacket to aid users in installation.
Allen-Bradley P/N 1485 CPI-C

DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • F-R = Flame-retardant • TC = Tinned Copper • TC-ER = Tray Cable Exposed Run per 2005 NEC Article 336

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

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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	**3082A**	NEC:	500†	152.4	71.0	32.2	(2)15 AWG TC	100%	Power Pair:	.480	12.19	—	—	—	—	—	—	—
75°C		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:									
							(19x30)	TC Braid	Blue&White			120	75%	12.0	39.4	.125	.13	.43
							6.9Ω/M′	1.8Ω/M′								.500	.25	.82
							22.6Ω/km	5.9Ω/km								1.000	.36	1.18

†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	**3082F**	NEC:	500†	152.4	72.5	32.9	(2)15 AWG TC	100%	Power Pair:	.480	12.19	—	—	—	—	—	—	—
Thick		CMG,	1000	304.8	140.0	63.5	(65x33)	Individual	Red&Black									
75°C		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:									
							(65x36)	TC Braid	Blue&White			120	75%	12.0	39.4	.125	.13	.43
							6.9Ω/M′	1.8Ω/M′								.500	.25	.82
							22.6Ω/km	5.9Ω/km								1.000	.36	1.18

†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	**3083A**	NEC:	1000	304.8	137.0	62.1	(2)15 AWG TC	100%	Power Pair:	.475	12.07	—	—	—	—	—	—	—
75°C		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:									
							(19x30)	TC Braid	Blue&White			120	75%	12.0	39.4	.125	.13	.43
							6.9Ω/M′	1.8Ω/M′								.500	.25	.82
							22.6Ω/km	5.9Ω/km								1.000	.36	1.18

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	**3084A**	NEC:	500	152.4	22.0	10.0	(2)22 AWG TC	100%	Power Pair:	.280	7.11	—	—	—	—	—	—	—
75°C		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:									
							(19x36)	TC Braid	Blue&White			120	75%	12.0	39.4	.125*	.29*	.95*
								28.0Ω/M′	3.2Ω/M′							.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	**3084F**	NEC:	500	152.4	22.0	10.0	(2)22 AWG TC	100%	Power Pair:	.275	6.99	—	—	—	—	—	—	—
Thin		CL2 CMG	1000	304.8	47.0	21.3	(154x44)	Individual	Red&Black									
75°C		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:									
							(105x44)	TC Braid	Blue&White			120	75%	12.0	39.4	.125*	.29*	.95*
							28.0Ω/M′	3.2Ω/M′								.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	**3085A**	NEC:	500	152.4	25.0	11.4	(2)22 AWG TC	100%	Power Pair:	.280	7.11	—	—	—	—	—	—	—
75°C		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:									
							(19x36)	TC Braid	Blue&White			120	75%	12.0	39.4	.125*	.29*	.95*
							28.0Ω/M′	3.2Ω/M′								.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.

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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		Maximum Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

300V Class 2 ODVA Cable III • 20 and 18 AWG Stranded TC Cond. • Indiv. Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)

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

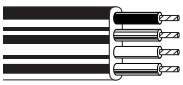
Mid	**7895A**	NEC:	500	152.4	41.0	18.6	(2)18 AWG TC	100%	Power Pair:	.378	9.60	—	—	—	—	—	—	—
75°C		CMG PLTC	1000	304.8	84.0	38.1	(19x30)	Individual	Red&Black									
		CEC:					6.9Ω/M′	Foil										
		CMG FT4					22.6Ω/km	+ Overall										
							(2)20 AWG TC	65%	Data Pair:									
							(19x32)	TC Braid	Blue&White			120	75%	12.0	39.4	.125	.29	.95
							10.9Ω/M′	3.2Ω/M′								.500	.50	1.64
							35.8Ω/km	10.5Ω/km								1.000	.70	2.30

UL AWM 20201 (600V)
20 AWG stranded (19x32) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

Flat • 16 AWG Stranded (19x29) Tinned Copper Conductors • Unshielded

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

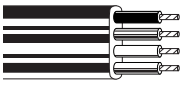
Class 2	**3082K**	NEC:	246	75.0	30.8	14.0	(4)16 AWG	Unshielded	Power Pair:	.760	10.92	—	—	—	—	—	—	—
300V 75°C		CMG CL2	656	200.0	78.7	35.7	TC		Red&Black	x	x							
		PLTC	1378	420.0	165.4	75.1	(19x29)			.210	5.33							
		CEC:					4.9Ω/M′											
		CMG FT4					16.1Ω/km											
									Data Pair:									
									Blue&White			120	75%	14.7	48.2	.125	.13	.43
																.500	.25	.82
																1.000	.40	1.31



Allen-Bradley P/N 1485 CPI-G

PVC Insulation • Black Sunlight-resistant PVC Jacket

Class 1	**3082KP**	NEC:	246	75.0	32.0	14.5	(4)16 AWG	Unshielded	Red&Black,	.760	10.92	—	—	—	—	—	—	—
Power		CMG, ITC,	656	200.0	81.3	36.9	TC		Blue&White	x	x							
600V 75°C		PLTC, TC	1378	420.0	170.9	77.6	(19x29)			.210	5.33							
		CEC:					4.9Ω/M′											
		CMG FT4					16.1Ω/km											
																.125	.13	.43
																.500	.25	.82
																1.000	.40	1.31



Allen-Bradley P/N 1485 CPI-G

DCR = DC Resistance • FPE = Foam Polyethylene • F-R = Flame-retardant • TC = Tinned Copper if conductor, or Tray Cable if NEC rating.

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