



Seamless communication for robust industrial environments

As industrial automation systems continue to increase in complexity, we understand the challenges that engineers and manufacturers face in designing and interconnecting system components from sensors to top-level controllers. Our range of industrial automation cables combines the industry-leading quality and exceptional reliability you expect from Alpha Wire with the performance to meet the rigorous requirements of the major automation communication architectures.

With superior quality to improve system reliability, Alpha Wire's industrial automation cables are available from stock, in put-ups as short as 100 feet (30 m), with same-day shipping for immediate needs.

ControlNet™ Low-loss RG-6/U coax designed to meet the high-speed, time-critical requirements of modern ControlNet factory-floor automation systems.

RS-485 Bringing proven data transmission protocol to the factory floor, rugged RS-485 cables reduce electrical noise sensitivity to keep reliability and performance at world-class levels.

DeviceNet™ Meeting ODVA thick and thin specifications, the cables comply with Allen-Bradley 1485 CPI-A and

1485 CPI-C, and support high data rates (500 kb/s at 100 m and 125 kb/s at 500 m).

Fieldbus and PROFIBUS® A complete family to meet ruggedness, performance, and quality requirements of almost any fieldbus and PROFIBUS application environment.

Industrial Twinax A robust physical media for the transmission of PLC/DCS signals in real-time, high-throughput applications, including Allen-Bradley Data Highway networks. The cables may be installed in the same tray or conduit as 600-volt power cable.

Alpha Wire

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Specifications

Alpha Wire offers a broad range of industrial automation cables for a wide variety of systems



Cable Type	Insulation/Jacket Material		Shielding	Features	Conductor/Stranding (AWG)	Nom. Impedance (Ω)	No. of Pairs	Cable Diameter		Part No.	
	Insulation	Jacket						Inch	mm		
ControlNet (RG-6/U Type)	Foam PE	PVC, black	Foil + 60% Al braid + Foil + 40% Al braid	UL Type CL2R, CMR CSA CMG, FT4 Sunlight resistant Voltage: 300 V	18 (Solid) Bare copperweld	75	-	0.298	7.57	6458	
								1	0.284	7.21	6453
								1.5	0.300	7.62	6454
RS-485	Foam HDPE	PVC, black	Foil + 90% TC braid	UL Type CM, PLTC CSA CM, FT1 Sunlight resistant Oil resistant Voltage: 300 V	22 (7x30) Tinned copper	120	2	0.356	9.04	6455	
								3	0.414	10.52	6456
								4	0.448	11.38	6457
DeviceNet Class 2 Thick	Power: PVC Data: FPE	PVC, grey	Individual foil + 65% TC braid overall	UL Type CMG, PLTC-ER CSA CMG, FT4 Sunlight resistant Oil resistant Voltage: 300 V	Power: 15 (19x28) Data: 18 (19x30) Tinned copper	120	2	0.480	12.19	6451	
DeviceNet Class 2 Thin	Power: PVC Data: FPE	PVC, grey	Individual foil + 65% TC braid overall	UL Type CL2, CMG CSA CMG, FT4 Sunlight resistant Oil resistant Voltage: 300 V	Power: 22 (19x34) Data: 24 (19x36) Tinned copper	120	2	0.280	7.11	6452	
Fieldbus Type A	Polyolefin	PVC, orange	Foil	UL Type PLTC-ER, CM, ITC CSA CM Sunlight resistant Voltage: 300 V	18 (7x26) Tinned copper	100	1	0.253	6.43	6459	
Fieldbus Type B					22 (7x30) Tinned copper						100
High-Speed Fieldbus	Foam HDPE	PVC, orange	Foil	UL Type PLTC, CM CSA CM Sunlight resistant Voltage: 300 V	22 (7x30) Tinned copper	150	1	0.351	8.92	6461	
PROFIBUS-DP	Foam HDPE	PVC, purple	Foil + 65% TC braid	UL Type PLTC, CMG CSA CMG, FT4 Sunlight resistant Voltage: 300 V	22 (Solid) Bare copper	150	1	0.315	8.00	6462	
					22 (7x30) Bare copper					150	1
Industrial Twinax	FRPP	PVC, blue	Foil + 55% TC braid	UL Type TC, PLTC, CMG, ITC CSA CMG, FT4 Sunlight resistant Voltage: 600 V	18 (7x26) Tinned copper	78	1	0.324	8.23	6450	

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