

Description

Multi-pair, self-supporting Aerial Service Wires (ASW) are used for subscriber lines in exchange plant; single-pair is often used for lateral runs from aerial plant. In both single and multi-pair types, the wire core is laid parallel to a solid steel support wire and jacketed in an integral extrusion to form a "figure-8" configuration utilizing a 0.109" solid, extra-high strength steel support member.

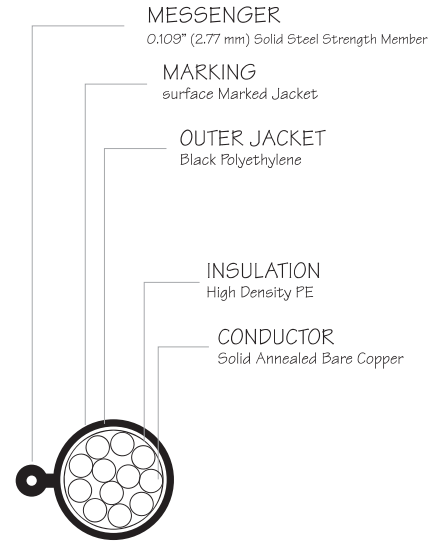
Conductors: Solid annealed copper in 19, 22 and 24 AWG.

Insulation: Each conductor is insulated with solid high-density color coded polyethylene resulting in excellent electrical and mechanical properties. Standard color codes are used for pair identification with color compounds chosen for electrical balance and permanency.

Assembly: Individual conductors are carefully twisted into pairs in a manner designed to minimize resistance unbalance. In multi-pair constructions, pair twist lays are varied to minimize crosstalk and meet capacitance unbalance requirements. Twisted pairs are formed into a firm, round core.

Outer Jacket: A black, high-molecular weight, polyethylene provides a tough, flexible protective covering that withstands exposure to sunlight, atmospheric temperatures and stresses encountered in standard installations. The steel support wire is jacketed in an integral extrusion with the core.

Cable cut-away



Applications

4SProducts multi-pair ASWire® cables are used for subscriber lines in exchange plant. The single-pair is often used for lateral runs from aerial plant.

Qualifications & Approvals

Manufactured to meet requirements for Hard Drawn Copper Wire ASTM B3.

Electrical Specifications

Average Mutual Capacitance @ 1000 Hz													
		nf/mile		nf/km									
Maximum Individual		94		58									
Wire Average		83 ± 7		52 ± 4									
Conductor Size		Minimum Insulation Resistance		Maximum Individual Attenuation		Maximum Individual Conductor DC Resistance		Resistance Unbalance		Dielectric Strength DC Potential Volts			
		68 °F (20 °C)		68 °F (20 °C) 772 kHz		68 °F (20 °C)		Maximum		Minimum			
AWG	mm	gigohm/mile	gigohm/km	dB/kft	dB/km	ohms/mile	ohms/km	Avg %	Individual pair %	Cdr to Cdr	Cdr to Sprt. Wire		
19	0.90	1.0	1.6	3.6	11.8	45.0	28.0	1.1	5.0	5,000	7,200		
22	0.64	1.0	1.6	5.1	16.7	91.0	56.4	1.1	5.0	4,000	7,200		
24	0.50	1.0	1.6	6.5	21.3	144.0	89.5	1.1	5.0	3,000	7,200		
Crosstalk Loss				dB/kft		dB/km		Capacitance Unbalance @1000 Hz		pF/kft		pF/km	
Min. FEXT @ 150 kHz				63		58		Max. Pair-to-Pair		80		145	
Min. NEXT @ 722 KHz				44 (dB)				Max. Pair-to-Support Wire		800		2,625	

