

# Integrated Messenger Wire IM/F, IM/H & IM/G



## Product Description

• IM/F IM/H and IM/G aerial service wire products in 2, 3, 6 and 12 pair are self supporting. The conductors are laid parallel to an (F) 0.083 inch, (H) 0.109 inch, or (G) 0.095 inch solid extra-strength steel support wire. Both the conductors and support wire are jacketed in an integral "figure-8" configuration. This product permits fast, economical installation from aerial distribution cable terminals to building entrance protectors or network interface units on the subscribers premises. The fully color coded core expedites splicing and terminating procedures.

## Physical Description

• **CONDUCTORS:** Solid annealed copper in 19 and 22 AWG.  
 • **INSULATION:** Each conductor is insulated with solid polyolefin in distinctive colors. Standard color codes are used for pair identification with compounds chosen for electrical balance and permanency.

• **CORE ASSEMBLY:** Individual conductor dimensions are tightly controlled to limit resistance unbalance of the twisted pairs. In multi-pair constructions, pair twist lays are varied to minimize crosstalk and meet capacitance limits. Twisted pairs are formed into a firm, round core.  
 • **OUTER JACKET:** A black, fire retardant, polyvinyl chloride jacket 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.

## Electrical Specifications

### Mutual Capacitance at 1000 Hz

All Pairs	nF/mile	nF/km
Maximum Individual	94	58
Wire Average	83 ± 7	52 ± 4

Conductor Size		Insulation Resistance Minimum		Attenuation – Max Average @ 772 kHz		Conductor DC Resistance @ 68°F Max Individual		Resistance Unbalance Maximum	Dielectric Strength Volts DC
AWG	mm	megohm/mile	megohm/km	dB/kft		ohms/mile		Individual Pair %	5 sec, no breakdown
19	0.9	1000	1600	3.6	11.8	45	28	5	
22	0.64	1000	1600	dry 5.1 wet 5.6	dry 16.7 wet 18.4	91	56	5	dry 7,200 wet 7,050

Crosstalk Loss	dB/kft	dB/km	Capacitance Unbalance @ 1000 Hz, Pair to Pair	pF/kft	pF/km
Min. FEXT @ 150 kHz	63	58	Maximum Pair to Pair	80	145
Min. NEXT @ 722 kHz		44dB	Maximum Pair to Ground	800	2,625

## Part Numbers and Physical Characteristics

Part #	Support Size	Pair Count	Nominal O.D in (mm)	Approx. Weight lbs/kft (kg/km)	Standard Length ft (m)	Package
<b>19 AWG (0.90 mm)</b>						
10-921-38	IM/G 0.095	2	0.27 (6.9)	73 (109)	656 (200)	Coil
10-923-38	IM/G 0.095	2	0.27 (6.9)	73 (109)	4921 (1500)	Reel
<b>22 AWG (0.64 mm)</b>						
10-002-34	IM/F 0.083	2	0.23 (5.8)	55 (82)	600 (183)	Coil
10-102-34	IM/F 0.083	2	0.23 (5.8)	55 (82)	5000 (1525)	Reel
10-503-34	IM/F 0.083	3	0.35 (8.9)	72 (107)	1000 (305)	Coil
10-006-34	IM/F 0.083	6	0.31 (7.9)	80 (119)	250 (76)	Coil
10-506-34	IM/F 0.083	6	0.31 (7.9)	80 (119)	1000 (305)	Coil
10-106-34	IM/F 0.083	6	0.31 (7.9)	80 (119)	3500 (1067)	Reel
10-206-34	IM/F 0.083	6	0.31 (7.9)	80 (119)	1000 (305)	Reel
10-306-34	IM/F 0.083	6	0.31 (7.9)	80 (119)	400 (122)	Coil
10-261-38	IM/G 0.095	6	0.31 (7.9)	80 (119)	492 (150)	Coil
10-262-38	IM/G 0.095	6	0.31 (7.9)	80 (119)	2461 (750)	Reel
10-265-38	IM/G 0.095	6	0.31 (7.9)	80 (119)	5000 (1562)	Reel
10-281-38	IM/G 0.095	12	0.39 (10)	114 (170)	410 (125)	Coil
10-284-38	IM/G 0.095	12	0.39 (10)	114 (170)	2460 (750)	Reel
10-285-38	IM/G 0.095	12	0.39 (10)	114 (170)	8202 (2500)	Reel
10-102-35	IM/H 0.109	12	0.38 (9.7)	130 (193)	1000 (305)	Reel
10-012-35	IM/H 0.109	12	0.38 (9.7)	130 (193)	250 (76)	Coil
10-212-35	IM/H 0.109	12	0.38 (9.7)	130 (193)	5000 (1525)	Reel

Contact Superior Essex for additional configurations and AWG sizes.