4SProducts
Copper Cable Assemblies

Technical
Data Sheet

AsFOUR®-2-8

Aluminum Steel Shield | Dual Jacket | AirCore | Fig-8

Pair Count 6 - 400P

Outside Plant Copper Cable - Exchange Cable

Description

Conductors: Solid annealed copper in 19, 22, 24 and 26 AWG.

Insulation: Conductors are insulated with solid polyolefin . The conductor insulation is color coded in accordance with industry standard.

Twisted Pair: Individual conductors are twisted into pairs with varying lay lengths to minimize crosstalk and specific color combinations to provide pair identification.

Core Assembly: Cables of 25 pairs or less are assembled into a cylindrical core. Cables larger than 25 pairs are assembled into units, which are then used to assemble the core. Units are individually identifiable by color coded unit binders.

Core Wrap: A non-hygroscopic, dielectric tape is applied over the core assembly to provide protection for the core.

Shielding: The dual shielding system consists of two metal tapes. Inner: A corrugated, copolymer coated, 8-mil aluminum tape is applied directly over the core wrap. The aluminum tape does not butt or overlap at any point along the length of the cable. Outer: A corrugated, copolymer coated, 6-mil steel tape is applied directly over the aluminum and overlaps. The shield interfaces are flooded with an adhesive compound to provide a moisture barrier and inhibit corrosion.

Support Member: A 1/4 inch, 7-strand Extra High Strength (EHS) galvanized steel messenger serves as the support member and is an integral part of the sheath. The messenger is flooded to inhibit corrosion.

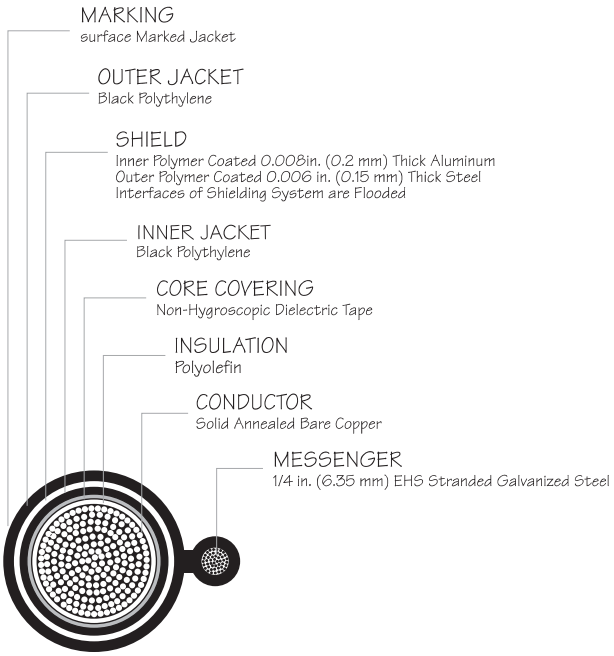
Outer Jacket: A black, linear low-density polyethylene jacket is applied overall. The jacket provides a tough protective covering designed to withstand exposure to direct sunlight, atmospheric temperature changes and stresses expected in standard installations.

Inner Jacket: A black polyethylene jacket.

Jacket Markings: Information, such as manufacturer's identification, pair count, AWG, product identification and a telephone handset is printed at 2 ft. intervals on the cable jacket. Sequential footage markings are printed at alternate 2 ft. intervals.

Optional Designs: AsFOUR®-2-8 is available with an internal screen for use with T-Carrier systems.

Cable cut-away



Applications

4SProducts AsFOUR®-2-8 cables are designed for aerial installations. The core and support member (messenger) lay parallel to each other forming a cross-sectional "Figure 8". The messenger is an integral part of the cable sheath, yet readily available for gripping, pulling and tensioning. Installation is fastand easy using standard methods and hardware.

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ELECTRICAL CHARACTERISTICS		Conductor Size							
		AWG				mm			
All values at or corrected to 20°C.		19	22	24	26	0.9	0.64	0.5	0.4
Mutual Capacitance									
nF/mile	(nF/km)								
Average									
	⩽ 12 pair	83 ± 7				(52 ± 4)			
	> 12 pair	83 ± 4				(52 ± 2)			
Maximum Individual									
	⩽12 pair	94				(58)			
	> 12 pair	92				(57)			
Capacitance Unbalance									
pF/kft	(pF/km)								
Pair to Pair									
	Maximum Individual	80				(145)			
	Maximum RMS (> 12 pair)	25				(45)			
Pair to Ground									
	Maximum Individual	800				(2,625)			
	Maximum Average (> 12 pair)	175				(574)			
Far-End Crosstalk									
dB/kft	(dB/km)								
Power Sum Mean									
	0.150 MHz:	65	63	63	61	(60)	(58)	(58)	(56)
	0.772 MHz:	51	49	49	47	(46)	(44)	(44)	(42)
	1.600 MHz:	44	43	42	41	(39)	(38)	(37)	(36)
	3.150 MHz:	39	37	37	35	(34)	(32)	(32)	(30)
	6.300 MHz:	33	31	31	29	(28)	(26)	(26)	(24)
Power Sum Worst Pair:									
	0.150 MHz:	59	57	57	57	(54)	(52)	(52)	(52)
	0.772 MHz:	45	43	43	43	(40)	(38)	(38)	(38)
	1.600 MHz:	39	37	37	37	(34)	(32)	(32)	(32)
	3.150 MHz:	33	31	31	31	(28)	(26)	(26)	(26)
	6.300 MHz:	27	25	25	25	(22)	(20)	(20)	(20)
Near-End Crosstalk									
dB/kft	(dB/km)								
Power Sum Mean									
	0.150 MHz:	58				(58)			
	0.772 MHz:	47				(47)			
	1.600 MHz:	43				(43)			
	3.150 MHz:	38				(38)			
	6.300 MHz:	34				(34)			
Power Sum Worst Pair:									
	0.150 MHz:	53				(53)			
	0.772 MHz:	42				(42)			
	1.600 MHz:	38				(38)			
	3.150 MHz:	33				(33)			
	6.300 MHz:	29				(29)			
Attenuation									
dB/kft	(dB/km)								
Maximum Average									
	(⩽ 12 pair) 150 kHz:	1.5	2.2	3.0	4.0	(5.1)	(7.3)	(9.8)	(13.0)
	(> 12 pair) 150 kHz:	1.4	2.0	2.7	3.6	(4.6)	(6.6)	(8.9)	(11.8)
	(⩽ 12 pair) 772 kHz:	3.6	5.2	6.5	8.1	(11.9)	(16.9)	(21.3)	(26.7)
	(> 12 pair) 772 kHz:	3.3	4.7	5.9	7.4	(10.8)	(15.4)	(19.4)	(24.3)
Insulation Resistance									
megaohm-mile	(megaohm-km)	1000				(1600)			
High Voltage Test									
dc Voltage for 3 seconds									
	Conductor-to-Conductor	5,000	4,000	3,000	2,400	5,000	4,000	3,000	2,400
	Conductor-to-Shield	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Conductor Resistance									
Ohm /mile	(Ohm /km)								
	Maximum Individual	45.0	91.0	144.0	232.0	(28.0)	(56.6)	(89.5)	(144.2)
Resistance Unbalance									
Percen t									
	Maximum Average	1.5				1.5			
	Maximum Individual	5.0				5.0			