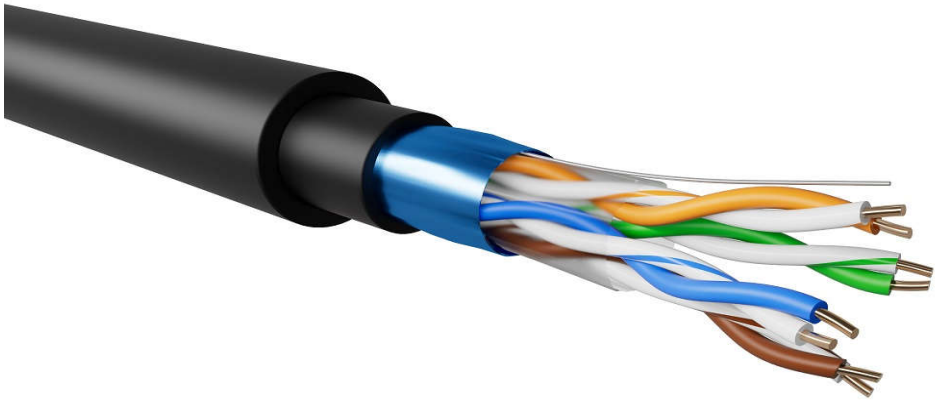
Technical Specification
Cable Type: 4x2x24# F/UTP Category 5e 100 Ohm Outdoor Horizontal Cable
P/N: KF804E1A
Revision: 04/24 Date: 10 November **2024**



Category 5e FTP outdoor cable, conforming to ANSI/TIA/EIA-568.2-D, ISO/IEC-11801 and IEC 61156-5.
The cable contains 4 twisted pairs cabled together, overall shielded with aluminum foil and inner-jacketed with a heavy duty, black, UV resistant & flame retardant PVC compound. An additional heavy-duty, black, UV Resistant PVC jacket renders the cable suitable for outdoor installations.

Physical Description

Basic conductor	Solid 0.50 mm, 24AWG, bare annealed copper
Insulation	Polyolefin, 1.08 mm nom OD.
Total number of insulated conductors	8, twisted in 4 pairs: Blue x White/Blue, Orange x White/Orange, Green x White/Green, Brown x White/Brown
Inner tape warp	Polyester tape, providing 100% coverage with 25% overlap
Overall shield	Polyester-aluminum foil, providing 100% coverage with 25% overlap
Drain wire	Solid 0.51 mm (24 AWG) tin-coated copper wire, laid in close contact to the aluminum foil
Inner jacket	Heavy-duty, UV-resistant, Flame-retardant PVC compound for outdoor use
Inner jacket color	Black RAL 9005
Inner jacket thickness	0.5 mm nom.
Inner jacket diameter	6.1 mm nom.
Outer jacket	Heavy-duty, UV-resistant, Flame-retardant PVC compound for outdoor use
Outer jacket thickness	0.7 mm nom.
Overall diameter	7.5 mm nom. 8.0 mm max.
Outer jacket color	Black, RAL 9005
Surface marking - white Ink	WESTERN WIRE KF804E1A 4x2x24 AWG F/UTP CATEGORY 5e OUTDOOR COMMUNICATIONS CABLE FR IEC 60332-1 CE 2011/65/EU (RoHS-2) [Batch Number] [Sequential Meter Mark] METER

Mechanical Properties

Bend radius	100 mm min.
Operating temperature range	-40 to +85°C
Storage temperature range	-40 to +85°C
Installation temperature range	-30 to +60°C
Pulling force	100 N max.
Flame test	IEC 60332-1
UV resistance	720 Hr min. exposure according to ASTM G53
Total weight	74 kg/km nom.

Electrical Properties

Characteristic Impedance	100±5 Ohm @ 1-100 MHz
DC Resistance	93 Ohm/km max.
Resistance unbalance	2% max.
Capacitance	45 pF/m nom. @ 1 kHz
Cap. unbalance (wire to ground)	1500 pF/km max. @ 1 kHz.
Voltage rating	72 Vdc max
Velocity of Propagation (NVP)	68%
Insulation resistance	5000 MegaOhm•km min. @ 500 Vdc
Coupling attenuation	55 dB min @ 30-100 MHz
Transfer impedance	50mOhm/m max. @ 1-30 MHz.

Transmission Properties - Conforming to Category 5e ANSI/TIA/EIA-568-B.2

FREQ.	Insertion Loss	NEXT	PS NEXT	EL FEXT	PS EL FEXT	RL	SKEW	Prop Delay	TCL
MHz	dB/100m	dB	dB	dB/100m	dB/100m	dB	ns/100m	nS/100m	dB
	Max	Min	Min	Min	Min	Min	Max	Max	Min
1.00	2.0	65.3	62.3	63.8	60.8	20.0	40.0	550	40.0
4.00	4.1	56.3	53.3	51.7	48.8	23.3	40.0	532	34.0
8.00	5.8	51.8	48.8	45.7	42.7	25.0	40.0	527	31.0
10.00	6.5	50.3	47.3	43.8	40.8	25.0	40.0	525	30.0
16.00	8.2	47.3	44.3	39.7	36.7	25.0	40.0	523	28.0
25.00	10.4	44.3	41.3	35.8	32.8	25.0	40.0	521	26.0
31.25	11.7	42.9	39.9	33.9	30.9	24.1	40.0	520	25.1
62.50	17.0	38.4	35.4	27.8	24.8	22.0	40.0	519	22.0
100.00	22.0	35.3	32.3	23.8	20.8	20.6	40.0	518	20.0

This cable fully conforms to EU Directive 2011/65/EU (RoHS-2)