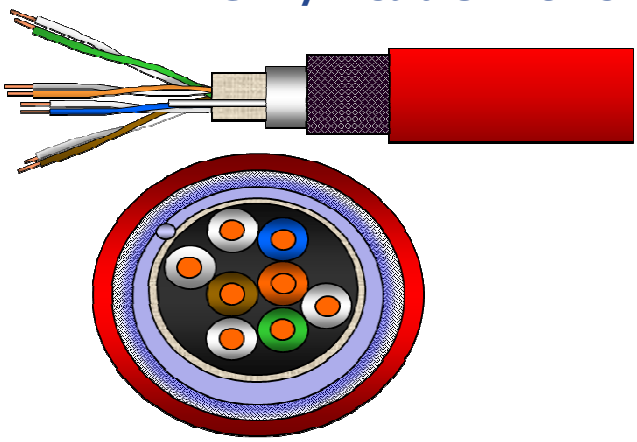
ICS IE FIRETUF DATA 4P LSHF-FR

IE SF/UTP 4x2xAWG22/1 cable with circuit integrity behavior



Application

Campus wiring, Riser applications, Horizontal backbone wiring, Building control systems, Intelligent fire alarm systems.
Circuit integrity structured wiring alarm cable, compatible with all known connection systems to EN 50173
IEEE 802.3: 10Base-T; (100Base-T <75m), IEEE 802.5 16 MB; ISDN; TPDDI; ATM RS485 (10Mbits)

Standards

Generally to ISO/IEC 11801: 95, EN 50173:95; EN 50288-1
Generally caterogised between Cat 3 and Cat 5 see notes [1, 2, 3, 4, 5]
Passes – ISO/IEC 11801 class D (95); TIA Cat 5 Ch (TSB67); ISO/IEC 11801 Class C

Fire/Flame resistance

Low Smoke:	BSEN 50268, IEC 61034-2,	
Halogen Free:	IEC 60754-1&2	
Flame Retardant:	IEC 60332-1, IEC 60332-3-24, BS4066 part 3, UL 1581 VW 1	
Circuit Integrity:	BS5839-1 2002 (clause 26.2e); BS8434-2; BSEN 50200, IEC60331	
	BS5839 enhanced 3 in 1 test	Passed
	Continued data operation @ 950°C	> 2 hours
	BS6387 CWZ	Passed
	BS EN 50200 (IEC60331)	>3 hours

Certification

Approved by LU (London Underground) – Independently tested by BRE Global.
Fire resistant BS5839-1 (clause 26.2e); BS8434-2; BSEN 50200
Flame retardant BS4066 part 3; Smoke emission BSEN 20568
LUL-Flammability, smoke & fume 2-01001-002
LU STANDARD e4156 part 1 – Approval ref TLL-ENG-MATTS-0076 (dated 21/06/2007)

Construction

Conductor	Bare copper wire, Ø 0.65 mm (AWG 22) 0.332mm2
Insulation	PE/Silicone Rubber1, Ø PE 1.0mm and Silicone Rubber 1.7 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Fire protection wrapping	Glass tape
Screen	Aluminium tape + tinned copper braid + Drain Wire
Sheath	Halogen free, flame retardant thermoplastic sheathing compound acc. to EN 50290-2-27, Ø OD - 10.5 mm
Colour	red RAL 3000
Marking	Firetuf Data (910245) 0.65mm x 4 pairs BS5839 + 26.2e Draka UK (then 105 spaces then) Firetuf Data (910245) 0.65mm x 4 pairs BS5839 + 26.2e Draka UK DD/MM/YY XXXX ####m

Note[1] – *Silicone rubber insulation especially for circuit integrity cables*

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Mechanical properties

Bending radius	without load	≥ 42 mm
	with load	≥ 84 mm
Temperature range	during operation	-20°C to + 60°C
	during installation	0°C to + 50°C

Electrical properties

at 20°C± 5°C

Loop resistance		≤ 110 Ω/km
Braid resistance		9.9Ω/Km
Drain wire + braid resistance		78Ω/Km (with braid = 8.79Ω/Km)
Resistance unbalance		≤ 2%
Insulation resistance	(500 V) 1 minute	≥ 2000 MΩ*km
Mutual capacitance	at 800 Hz	Nom. 60 nF/km
Capacitance unbalance	(pair/ground)	≤ 1600 pF/km
Characteristic impedance note[2]	(at 10) MHz	(100 ± 15) Ω
Nominal velocity of propagation note[3]		ca. 57 %
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance	at 10 MHz	5 mΩ/m

Note[2] – Structured cabling Characteristic Impedance is normally within (100 ± 5) Ω , due to the insulation system this is not achievable all the time
Note3 Structured cabling systems minimum for c=65%, due to the insulation (PE + Sil Rbr) system this is not achieved, that is nvp 0,57

Electrical data (nominal)

acc. to Cat.5(95)note[4] (at 20°C)

Note[4] Cat 5 (95) specification: not the Cat5e of today i.e. gigabit ethernet
Note[5] When used in a 100m Channel, 90m + 10m patch cords, the Class D (95) is fit for some purposes: it is advisable to approve a 100m sample and perform a trial on the system before installation

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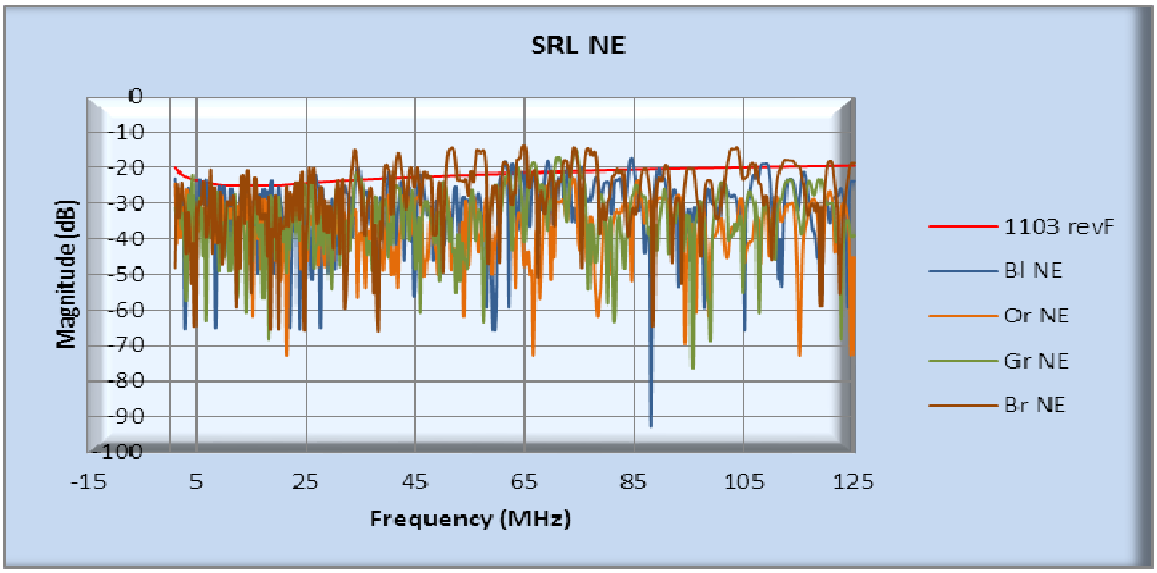

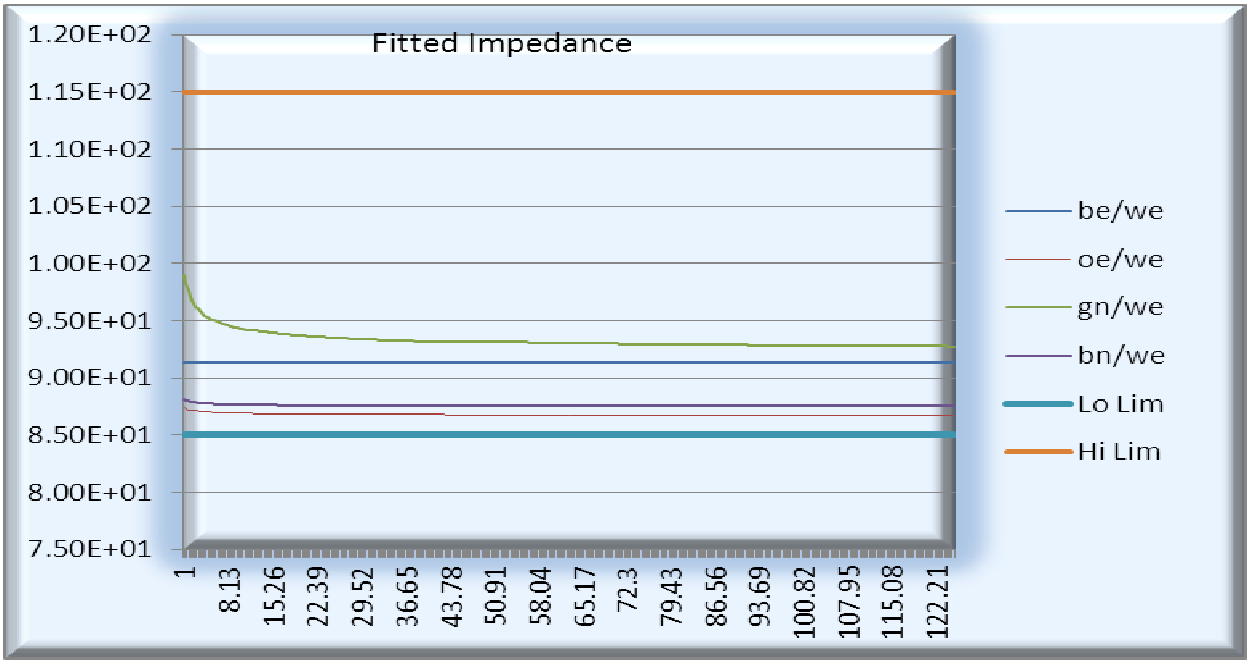

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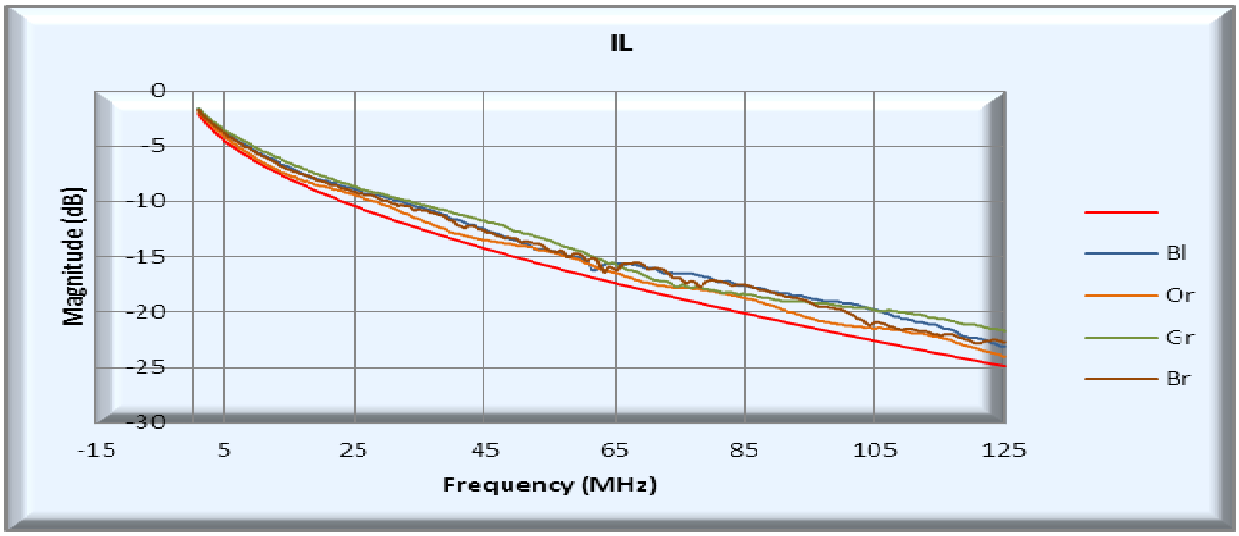

Technical data

Product code	Cable type	Brand name	Outer diameter	Fire load		Weight	Copper content	Tensile force
			mm	MJ/km	kWh/m	kg/km		N
60018010	J-2Y/2G(St)CH 4x2x0.65 -100	DRAKA ICS IE FIRETUF DATA 4P LSHF-FR	10.1			142	56.9	100

[PRODUCT CODE TABLE]