

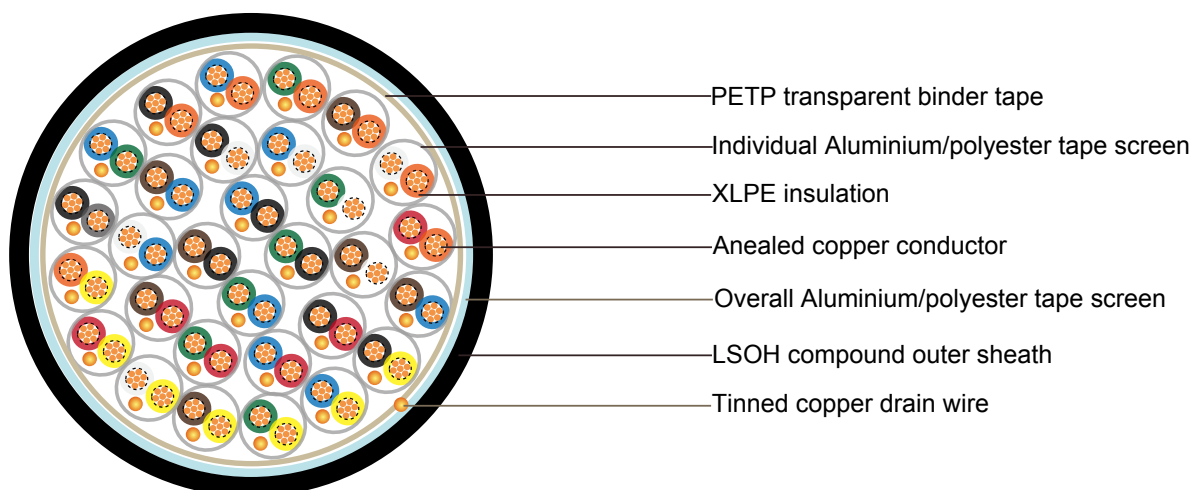


### BS5308 Cable Part 1 Type1 XLPE-IS-OS-LSOH/ RE-2X(St)H PIMF

#### Application

The unarmoured LSOH versions (Part 1 Type 1) are generally use for indoor installation and suitable for wet and damp areas. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services, Also used for the interconnection of electrical equipment and instruments, the LSOH sheath can reduce toxic smoke and fume emission.

#### Construction



<b>Conductor</b>	Annealed or tinned copper, sizes: 0.5mm <sup>2</sup> and 0.75mm <sup>2</sup> multistranded(Class 5), 0.5 mm <sup>2</sup> , 1.0 mm <sup>2</sup> solid(Class 1), 1.5mm <sup>2</sup> or 2.5mm <sup>2</sup> , multistranded(Class 2) to BS6360
<b>Insulation</b>	XLPE (Cross Linked Polyethylene), or PE (optional)
<b>Pairing</b>	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
<b>Colour code</b>	See technical information
<b>Individual screen</b>	Aluminium/polyester tape is applied over each pair metallic side down in contact with tinned copper drain wire, 0.5mm <sup>2</sup>
<b>Binder tape</b>	PETP transparent tape
<b>Collective screen</b>	Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact with tinned copper drain wire, 0.5mm <sup>2</sup>
<b>Outer sheath</b>	LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2
<b>Sheath colour</b>	Black or blue



### Mechanical and Electrical Properties

Operating temperature: -20°C up to + 90°C( fixed installation)

0°C to +50°C(during operation)

Minimum bending radius: 5 x overall diameter

<b>Conductor Area Size</b>	mm <sup>2</sup>	0.5	0.5	0.75	1.0	1.5
<b>Conductor Stranding</b>	No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
<b>Conductor resistance max</b>	ohm/km	36.8	39.7	26.5	18.2	12.3
<b>Insulation resistance min</b>	Gohm/km	5	5	5	5	5
<b>Capacitance unbalance at 1 kHz(pair to pair screen)</b>	pF/250m	250				
<b>Max. Mutual Capacitance @ 1 kHz for Non OS or OS cables (except one-pair and two-pairs)</b>	pF/m	115	115	115	115	115
<b>Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair)</b>	pF/m	75	75	75	75	75
<b>Max. L/R Ratio for adjacent cores(Inductance/Resistance)</b>	µH/ohm	25	25	25	25	40
<b>Test voltage</b>	<b>Core to core</b>	V	1000	1000	1000	1000
	<b>Core to screen</b>	V	1000	1000	1000	1000
<b>Rated voltage max</b>	V	300/500	300/500	300/500	300/500	300/500

### Parameter

Number of Pairs	Number and Diameter of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Diameter of Cable	Approx. Weight
	no./mm	mm <sup>2</sup>	mm	mm	mm	kg/km
2	1/0.8	0.5	0.5	0.9	9.7	95
5	1/0.8	0.5	0.5	1.2	13	180
10	1/0.8	0.5	0.5	1.2	16.9	310
15	1/0.8	0.5	0.5	1.3	19.7	440
20	1/0.8	0.5	0.5	1.3	22.3	560
30	1/0.8	0.5	0.5	1.5	27.1	820
50	1/0.8	0.5	0.5	2	35	1370
2	16/0.2	0.5	0.6	1.1	11.2	110
5	16/0.2	0.5	0.6	1.2	14.5	250
10	16/0.2	0.5	0.6	1.3	19.3	480



Number of Pairs	Number and Diameter of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Nominal Diameter of Cable	Approx. Weight
	no./mm	mm <sup>2</sup>	mm	mm	mm	kg/km
15	16/0.2	0.5	0.6	1.5	22.6	570
20	16/0.2	0.5	0.6	1.5	25.7	780
30	16/0.2	0.5	0.6	1.7	31	1020
50	16/0.2	0.5	0.6	2.2	39.9	1680
2	1/1.13	1	0.6	1.1	11.9	200
5	1/1.13	1	0.6	1.2	15.4	290
10	1/1.13	1	0.6	1.3	20.5	580
15	1/1.13	1	0.6	1.5	24.1	780
20	1/1.13	1	0.6	1.7	27.7	1010
30	1/1.13	1	0.6	2	33.7	1430
50	1/1.13	1	0.6	2.2	42.5	2360
2	7/0.53	1.5	0.6	1.2	13.6	250
5	7/0.53	1.5	0.6	1.3	17.7	460
10	7/0.53	1.5	0.6	1.5	23.9	760
15	7/0.53	1.5	0.6	1.7	28	1020
20	7/0.53	1.5	0.6	2	31.7	1350
30	7/0.53	1.5	0.6	2.2	38.6	1900
50	7/0.53	1.5	0.6	2.2	48.9	3060