

Application

BS 5308 LSZH sheath 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



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

Mechanical 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

Electrical Properties

Conductor Area Size	mm ²	0.5	0.5	0.75	1.0	1.5
Conductor Stranding	No. x mm	1 x 0.8	16 x 0.2	24 x 0.2	1 x 1.13	7 x 0.53
Conductor resistance max	ohm/km	36.8	39.7	26.5	18.2	12.3
Insulation resistance min	Gohm/km	5	5	5	5	5
Capacitance unbalance at 1 kHz(pair to pair screen)	pF/250m	250				
Max. Mutual Capacitance @ 1 kHz for Non OS or OS cables (except one-pair and two-pairs)	pF/m	115	115	115	115	115
Max. Mutual Capacitance @ 1 kHz	pF/m	75	75	75	75	75

IS/OS cables (include 1 pair and 2 pair)						
Max. L/R Ratio for adjacent cores(Inductance/ Resistance)		??H/ohm	25	25	25	40
Test voltage	Core to core	V	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000
Rated voltage max		V	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 ²	mm	mm	mm	kg/km
1	1/0.80	0.5	0.5	0.8	5.5	35
2	1/0.80	0.5	0.5	0.8	6.8	55
5	1/0.80	0.5	0.5	1.1	10.9	125
10	1/0.80	0.5	0.5	1.2	14.4	215
15	1/0.80	0.5	0.5	1.2	16.5	300
20	1/0.80	0.5	0.5	1.3	18.8	385
30	1/0.80	0.5	0.5	1.3	22.3	545
50	1/0.80	0.5	0.5	1.5	28.5	875
1	16/0.20	0.5	0.6	0.8	6.2	60
2	16/0.20	0.5	0.6	0.8	7.6	80
5	16/0.20	0.5	0.6	1.1	12.4	210
10	16/0.20	0.5	0.6	1.2	16.5	340
15	16/0.20	0.5	0.6	1.3	19.2	440
20	16/0.20	0.5	0.6	1.3	21.7	570
30	16/0.20	0.5	0.6	1.5	26.4	780
50	16/0.20	0.5	0.6	1.7	33.4	1130
1	24/0.2	0.75	0.6	0.8	6.7	75
2	24/0.2	0.75	0.6	0.9	8.4	100
5	24/0.2	0.75	0.6	1.2	13.8	250
10	24/0.2	0.75	0.6	1.3	18.4	450
15	24/0.2	0.75	0.6	1.5	21.1	600
20	24/0.2	0.75	0.6	1.5	24.4	920
30	24/0.2	0.75	0.6	1.7	29.5	980
50	24/0.2	0.75	0.6	2	37.6	1690
1	1/1.13	1	0.6	0.8	6.6	85
2	1/1.13	1	0.6	0.8	8	115
5	1/1.13	1	0.6	1.2	13.5	290

10	1/1.13	1	0.6	1.2	17.7	500
15	1/1.13	1	0.6	1.3	20.6	670
20	1/1.13	1	0.6	1.5	23.8	950
30	1/1.13	1	0.6	1.5	28.4	1030
50	1/1.13	1	0.6	2	36.6	1750
1	7/0.53	1.5	0.6	0.8	7.5	100
2	7/0.53	1.5	0.6	0.9	9.3	150
5	7/0.53	1.5	0.6	1.2	15.6	360
10	7/0.53	1.5	0.6	1.3	20.9	690
15	7/0.53	1.5	0.6	1.5	24.6	880
20	7/0.53	1.5	0.6	1.5	27.8	1230
30	7/0.53	1.5	0.6	1.7	33.7	1560
50	7/0.53	1.5	0.6	2	43	2400