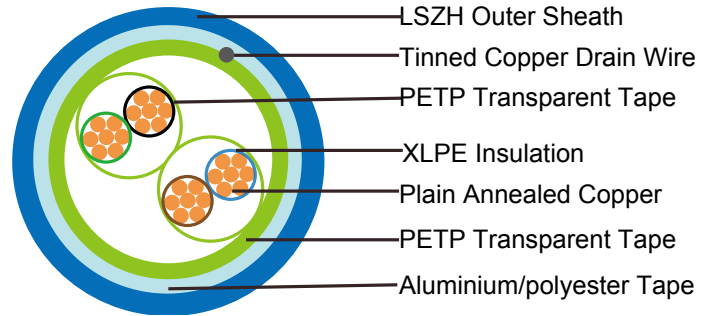


## Flame Retardant Overall Screened Instrumentation Cables (Multipair)

RE-2X(St)H



### APPLICATION

The unarmoured LSZH versions (Part 1 Type 1) cables 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 LSZH sheath can reduce toxic smoke and fume emission.

### STANDARDS

Basic design adapted to BS 5308 Part 1 Type 1

### FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4
Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk \* denotes superseded standard.

### VOLTAGE RATING

300/500V



### CABLE CONSTRUCTION

**Conductor:** 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

**Insulation:** XLPE (Cross Linked Polyethylene), or PE (optional)

**Pairs:** Two insulated conductors uniformly twisted together with a lay not exceeding 100mm

**Binder tape:** PETP transparent tape

**Overall Screen:** 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>

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered.). UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

### COLOUR CODE

**Insulation Colour:** See technical information

**Outer sheath:** Black or blue

### PHYSICAL AND THERMAL PROPERTIES

**Maximum Operating temperature:** -20°C - + 90°C( fixed installation)  
0°C - +50°C(during operation)

**Minimum bending radius:** 5 x Overall Diameter

### ELECTRICAL PROPERTIES

Conductor Area Size	mm <sup>2</sup>	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 IS/OS cables (include 1 pair and 2 pair)	pF/m	75	75	75	75	75
Max. L/R Ratio for adjacent cores(Inductance/Resistance)	µH/ohm	25	25	25	25	40
Test voltage	Core to core	V	1000	1000	1000	1000
	Core to screen	V	1000	1000	1000	1000

## CONSTRUCTION PARAMETERS

Conductor			RE-2X(St)H			
Number of Pairs	No./ Nominal Diameter of Strands	Nominal Conductor Cross-Section Area	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	no./mm	mm <sup>2</sup>	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



# Caledonian

## Flame Retardant Instrumentation Cables

www.caledonian-cables.co.uk    www.addison-cables.com



Number of Pairs	Conductor		RE-2X(St)H			
	No./ Nominal Diameter of Strands	Nominal Conductor Cross-Section Area mm <sup>2</sup>	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Approx. Weight kg/km
	no./mm	mm <sup>2</sup>	mm	mm	mm	kg/km
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



300/500V

Rated Voltage



BS 5308

Standard



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



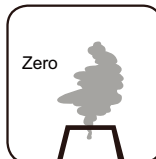
Low Toxicity  
NES 02-713/NF C 20-454



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Zero

Halogen Free  
IEC60754-1  
EN50267-2-1