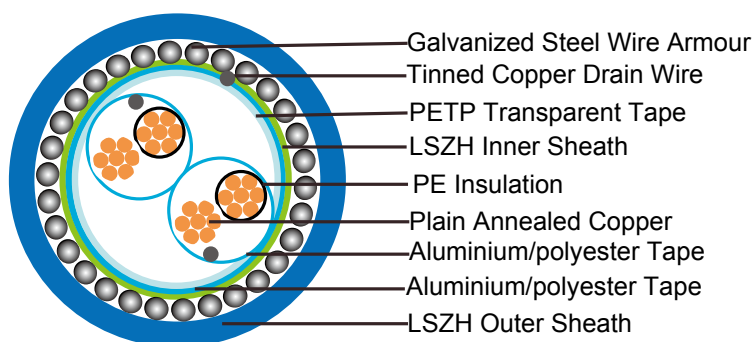




PE Insulated, LSZH Sheathed, Individual and Overall Screened & Armoured Instrumentation Cables (Multipair)

RE-2Y(St)HSAH PIMF 90°C / 300V



APPLICATION

The armoured LSZH sheathed cables are generally used when the risk of mechanical damage is increased. The galvanized steel wire armour provides excellent protection. Generally, the cables are 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 to EN 50288-7

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
Sunlight Resistance	UL 1581 section 1200
Oil Resistance	ICEA S-73-532**

Note: Asterisk * denotes superseded standard, **Test temperature +60°C, duration 4h. Retention: min 60% of tensile strength/min.60% of elongation.

VOLTAGE RATING

300/500V

CABLE CONSTRUCTION

Conductor: Annealed copper solid or plain copper stranded to IEC 60228 Class 2.

Insulation: PE compound, EN 50290. 2-23.

Pairs: Two insulated conductors uniformly twisted together with a specified length lay.

Individual Screen: Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact with tinned copper drain wire, 0.5mm²

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, 0.5mm²

Inner Sheath: LSZH(Low Smoke Zero Halogen) sheath

Armouring: Galvanized steel wire armour

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: Black / White, continuously numbered on white core(1, 2..)for multipair.

Outer Sheath: Black or blue for intrinsically safe systems

PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation (Fixed State): -30°C – +90°C

Temperature Range During Installation (Mobile State): -20°C – +50°C

Minimum Bending Radius: 10 X Overall Diameter

ELECTRICAL PROPERTIES

Conductor Area Size	mm ²	0.5	0.75	1.0	1.3	1.5
Insulation thickness (nominal)	mm	0.35	0.38	0.4	0.45	0.45
Conductor resistance (20°C)	Ω/km	36.7	25	18.5	14.2	12.3
Insulation resistance (20°C)	MΩ.km(Min.)	5000				
Mutual Capacitance (1 kHz)	pF/m(Max.)	115				
Inductance	mH/km (Max.)	1				
L / R (ratio) (max.)	μH/Ω	25	25	25	40	40
Operating voltage Urms	V	300				



Test Voltage	Core to Core	V	1500
	Core to Screen	V	1500

CONSTRUCTION PARAMETERS

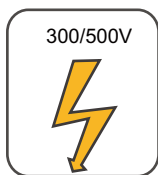
Caledonian Cable Code	RE-2X(St)HSAWAH PiMF					
	No. of Pairsx2 xCross Section	Nominal Insulation Thick- ness	Nominal Inner Sheath Thick- ness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thick- ness
	No.x2xmm ²	mm ²	mm	mm	mm	mm
0.5mm ² , Multipair						
RE-2X(St)HSAWAH PiMF 2P0.5	2x2x0.5	0.35	0.9	8.7	0.9	1.4
RE-2X(St)HSAWAH PiMF 4P0.5	4x2x0.5	0.35	1.0	10.2	0.9	1.4
RE-2X(St)HSAWAH PiMF 5P0.5	5x2x0.5	0.35	1.0	11.2	0.9	1.4
RE-2X(St)HSAWAH PiMF 6P0.5	6x2x0.5	0.35	1.0	12.1	0.9	1.6
RE-2X(St)HSAWAH PiMF 8P0.5	8x2x0.5	0.35	1.1	13.1	0.9	1.6
RE-2X(St)HSAWAH PiMF 10P0.5	10x2x0.5	0.35	1.2	15.1	0.9	1.5
RE-2X(St)HSAWAH PiMF 12P0.5	12x2x0.5	0.35	1.2	15.7	0.9	1.5
RE-2X(St)HSAWAH PiMF 16P0.5	16x2x0.5	0.35	1.2	17.8	1.25	1.6
RE-2X(St)HSAWAH PiMF 20P0.5	20x2x0.5	0.35	1.3	19.7	1.25	1.7
RE-2X(St)HSAWAH PiMF 24P0.5	24x2x0.5	0.35	1.4	21.5	1.25	1.7
0.75mm ² , Multipair						
RE-2X(St)HSAWAH PiMF 2P0.75	2x2x0.75	0.38	1.0	9.7	0.9	1.4
RE-2X(St)HSAWAH PiMF 4P0.75	4x2x0.75	0.38	1.0	11.2	0.9	1.4
RE-2X(St)HSAWAH PiMF 5P0.75	5x2x0.75	0.38	1.1	12.5	0.9	1.5
RE-2X(St)HSAWAH PiMF 6P0.75	6x2x0.75	0.38	1.1	13.6	0.9	1.5
RE-2X(St)HSAWAH PiMF 8P0.75	8x2x0.75	0.38	1.1	14.4	0.9	1.5
RE-2X(St)HSAWAH PiMF 10P0.75	10x2x0.75	0.38	1.2	16.6	1.25	1.6
RE-2X(St)HSAWAH PiMF 12P0.75	12x2x0.75	0.38	1.2	17.4	1.25	1.6
RE-2X(St)HSAWAH PiMF 16P0.75	16x2x0.75	0.38	1.3	19.8	1.25	1.7
RE-2X(St)HSAWAH PiMF 20P0.75	20x2x0.75	0.38	1.4	22.0	1.25	1.7
RE-2X(St)HSAWAH PiMF 24P0.75	24x2x0.75	0.38	1.5	24.0	1.25	1.8

Caledonian Cable Code	RE-2X(St)HSAWAH PiMF					
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	No.x2xmm ²	mm ²	mm	mm	mm	mm
1.0mm ² , Multipair						
RE-2X(St)HSAWAH PiMF 2P1.0	2x2x1.0	0.4	1.0	10.4	0.9	1.4
RE-2X(St)HSAWAH PiMF 4P1.0	3x2x1.0	0.4	1.0	12.1	0.9	1.4
RE-2X(St)HSAWAH PiMF 5P1.0	4x2x1.0	0.4	1.1	13.5	0.9	1.5
RE-2X(St)HSAWAH PiMF 6P1.0	5x2x1.0	0.4	1.1	14.7	0.9	1.5
RE-2X(St)HSAWAH PiMF 8P1.0	8x2x1.0	0.4	1.2	15.8	0.9	1.5
RE-2X(St)HSAWAH PiMF 10P1.0	10x2x1.0	0.4	1.2	18.0	1.25	1.6
RE-2X(St)HSAWAH PiMF 12P1.0	12x2x1.0	0.4	1.3	19.0	1.25	1.7
RE-2X(St)HSAWAH PiMF 16P1.0	16x2x1.0	0.4	1.3	21.5	1.25	1.7
RE-2X(St)HSAWAH PiMF 20P1.0	20x2x1.0	0.4	1.4	23.9	1.25	1.7
RE-2X(St)HSAWAH PiMF 24P1.0	24x2x1.0	0.4	1.5	26.1	1.25	1.8
1.3mm ² , Multipair						
RE-2X(St)HSAWAH PiMF 2P1.3	2x2x1.3	0.45	1.0	11.4	0.9	1.4
RE-2X(St)HSAWAH PiMF 4P1.3	4x2x1.3	0.45	1.1	13.4	0.9	1.5
RE-2X(St)HSAWAH PiMF 5P1.3	5x2x1.3	0.45	1.1	14.8	0.9	1.5
RE-2X(St)HSAWAH PiMF 6P1.3	6x2x1.3	0.45	1.2	16.3	0.9	1.6
RE-2X(St)HSAWAH PiMF 8P1.3	8x2x1.3	0.45	1.3	17.6	1.25	1.6
RE-2X(St)HSAWAH PiMF 10P1.3	10x2x1.3	0.45	1.3	20.0	1.25	1.7
RE-2X(St)HSAWAH PiMF 12P1.3	12x2x1.3	0.45	1.4	21.1	1.25	1.7
RE-2X(St)HSAWAH PiMF 16P1.3	16x2x1.3	0.45	1.5	24.1	1.25	1.8
RE-2X(St)HSAWAH PiMF 20P1.3	20x2x1.3	0.45	1.6	26.8	1.25	1.9
RE-2X(St)HSAWAH PiMF 24P1.3	24x2x1.3	0.45	1.7	29.2	1.25	2.0
1.5mm ² , Multipair						
RE-2X(St)HSAWAH PiMF 2P1.5	2x2x1.5	0.45	1.0	11.8	0.9	1.5
RE-2X(St)HSAWAH PiMF 4P1.5	4x2x1.5	0.45	1.1	13.9	0.9	1.5
RE-2X(St)HSAWAH PiMF 5P1.5	5x2x1.5	0.45	1.2	15.5	0.9	1.5
RE-2X(St)HSAWAH PiMF 6P1.5	6x2x1.5	0.45	1.2	16.9	1.25	1.6



Caledonian Cable Code	RE-2X(St)HSAH PiMF					
	No. of Pairsx2 xCross Section	Nominal Insulation Thick- ness	Nominal Inner Sheath Thick- ness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thick- ness
	No.x2xmm ²	mm ²	mm	mm	mm	mm
RE-2X(St)HSAH PiMF 8P1.5	8x2x1.5	0.45	1.3	18.2	1.25	1.7
RE-2X(St)HSAH PiMF 10P1.5	10x2x1.5	0.45	1.4	21.0	1.25	1.7
RE-2X(St)HSAH PiMF 12P1.5	12x2x1.5	0.45	1.4	21.9	1.25	1.7
RE-2X(St)HSAH PiMF 16P1.5	16x2x1.5	0.45	1.5	25.1	1.25	1.8
RE-2X(St)HSAH PiMF 20P1.5	20x2x1.5	0.45	1.6	27.8	1.25	1.9
RE-2X(St)HSAH PiMF 24P1.5	24x2x1.5	0.45	1.7	30.4	1.25	2.0

Note : Other conductor sizes & core configurations are available upon request.



Rated Voltage



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



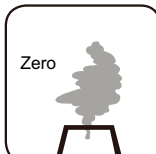
Low Toxicity
NES 02-713/NF C 20-454



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



Halogen Free
IEC60754-1
EN50267-2-1