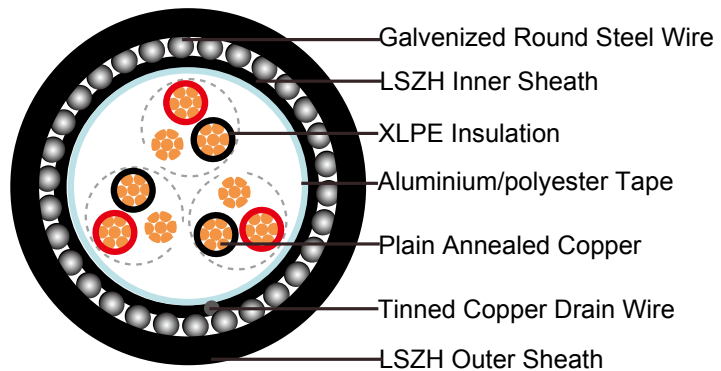
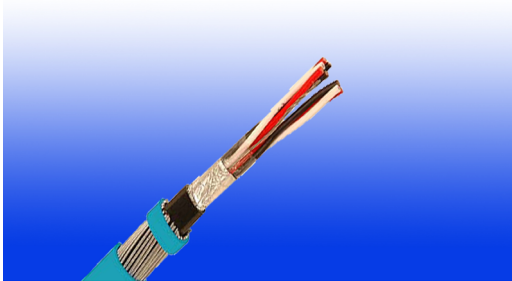


XLPE Insulated, LSZH Sheathed, Overall Screened & Armoured Instrumentation Cables (Multitriples)

RE-2XSt)HSAH 70°C / 300 V



APPLICATION:

These cables are used for transmission of analogue and digital signals in instrument and control systems at chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants, etc...

These cables are used in the environments which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. Instrumentation cables are not allowed for direct connection to a low impedance sources, e.g. public mains electricity supply. With blue sheath it is suitable for intrinsically safe systems. These cables are not recommended for direct burial. They are for indoor and outdoor installation, in dry and wet locations; on racks, trays, in conduits.

STANDARDS

Basic design to EN50288-7

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Note: Asterisk * denotes superseded standard, ** denotes Test temperature +60°C, duration 4h.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

VOLTAGE RATING

300V

CABLE CONSTRUCTION

Conductor: Annealed copper solid or plain copper stranded to IEC 60228 Class 2. Insulation: Extruded cross-linked XLPE compound, EN 50290. 2-29.

Triple: Three conductors twisted to form a triple

Lay-up: Triples laid up in layers of optimum pitch

Overall Screen: Aluminium/polyester tape with tinned copper drain wire, 0.5mm²

Inner sheath: LSZH compound

Armour: Galvanized round steel wire, EN 10257-1

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/Red, continuously numbered on white core(1, 2..)for multitruples.

Outer Sheath: Black or blue for intrinsically safe systems

PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation (Fixed State): -30°C – +70°C

Temperature Range During Installation (Mobile State): -5°C – +50°C

Minimum Bending Radius: 7.5 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.)					

	≤ 4 pairs	90	90	90	102	102
	all other pairs	75	75	75	85	85
Capacitance unbalance(1 kHz)	pF/500 m (Max.)	500				
L / R (ratio) (max.)	μH/Ω	25	25	25	40	40
Inductance	mH/km(Max.)	1				
Operating voltage Urms	V	300				
Test Voltage	Core to Core	1500				
	Core to Screen	1500				

CONSTRUCTION PARAMETERS

Caledonian Cable Code	RE-2X(St)HSAWAH					
	No. of Triples x3xCross 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.x3xmm ²	mm	mm	mm	mm	mm
0.5mm ² , Multi-stripe						
RE-2X(St)HSAWAH 2T0.5	2x3x0.5	0.35	0.9	8.4	0.9	1.4
RE-2X(St)HSAWAH 4T0.5	4x3x0.5	0.35	1.0	9.8	0.9	1.4
RE-2X(St)HSAWAH 5T0.5	5x3x0.5	0.35	1.0	10.8	0.9	1.4
RE-2X(St)HSAWAH 6T0.5	6x3x0.5	0.35	1.0	12.1	0.9	1.4
RE-2X(St)HSAWAH 8T0.5	8x3x0.5	0.35	1.1	13.1	0.9	1.5
RE-2X(St)HSAWAH 10T0.5	10x3x0.5	0.35	1.1	14.7	0.9	1.5
RE-2X(St)HSAWAH 12T0.5	12x3x0.5	0.35	1.1	15.2	0.9	1.5
RE-2X(St)HSAWAH 16T0.5	16x3x0.5	0.35	1.2	17.4	0.9	1.6
RE-2X(St)HSAWAH 20T0.5	20x3x0.5	0.35	1.2	19.1	1.25	1.6
RE-2X(St)HSAWAH 24T0.5	24x3x0.5	0.35	1.3	20.9	1.25	1.7
0.75mm ² , Multi-stripe						
RE-2X(St)HSAWAH 2T0.75	2x3x0.75	0.38	1.0	10.6	0.9	1.4
RE-2X(St)HSAWAH 4T0.75	4x3x0.75	0.38	1.1	12.4	0.9	1.4
RE-2X(St)HSAWAH 5T0.75	5x3x0.75	0.38	1.1	13.7	0.9	1.4
RE-2X(St)HSAWAH 6T0.75	6x3x0.75	0.38	1.1	15.4	0.9	1.5
RE-2X(St)HSAWAH 8T0.75	8x3x0.75	0.38	1.2	16.7	0.9	1.5
RE-2X(St)HSAWAH 10T0.75	10x3x0.75	0.38	1.3	19.0	0.9	1.5



Caledonian Cable Code	RE-2X(St)HSAWAH					
	No. of Triples x3xCross 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.x3xmm ²	mm	mm	mm	mm	mm
RE-2X(St)HSAWAH 12T0.75	12x3x0.75	0.38	1.3	19.7	0.9	1.7
RE-2X(St)HSAWAH 16T0.75	16x3x0.75	0.38	1.4	22.5	1.25	1.6
RE-2X(St)HSAWAH 20T0.75	20x3x0.75	0.38	1.5	24.9	1.25	1.7
RE-2X(St)HSAWAH 24T0.75	24x3x0.75	0.38	1.6	27.2	1.25	1.7
1.0mm ² , Multi-stripe						
RE-2X(St)HSAWAH 2T1.0	2x3x1.0	0.4	1.0	11.5	0.9	1.4
RE-2X(St)HSAWAH 4T1.0	4x3x1.0	0.4	1.1	13.4	0.9	1.4
RE-2X(St)HSAWAH 5T1.0	5x3x1.0	0.4	1.1	14.8	0.9	1.5
RE-2X(St)HSAWAH 6T1.0	6x3x1.0	0.4	1.2	16.9	0.9	1.5
RE-2X(St)HSAWAH 8T1.0	8x3x1.0	0.4	1.2	18.1	0.9	1.5
RE-2X(St)HSAWAH 10T1.0	10x3x1.0	0.4	1.3	20.7	0.9	1.6
RE-2X(St)HSAWAH 12T1.0	12x3x1.0	0.4	1.3	21.4	1.25	1.6
RE-2X(St)HSAWAH 16T1.0	16x3x1.0	0.4	1.4	24.4	1.25	1.7
RE-2X(St)HSAWAH 20T1.0	20x3x1.0	0.4	1.5	27.1	1.25	1.7
RE-2X(St)HSAWAH 24T1.0	24x3x1.0	0.4	1.6	29.6	1.25	1.8
1.3mm ² , Multi-stripe						
RE-2X(St)HSAWAH 2T1.3	2x3x1.3	0.45	1.1	12.8	0.9	1.4
RE-2X(St)HSAWAH 4T1.3	4x3x1.3	0.45	1.1	14.7	0.9	1.5
RE-2X(St)HSAWAH 5T1.3	5x3x1.3	0.45	1.2	16.5	0.9	1.5
RE-2X(St)HSAWAH 6T1.3	6x3x1.3	0.45	1.3	18.8	0.9	1.5
RE-2X(St)HSAWAH 8T1.3	8x3x1.3	0.45	1.3	20.1	0.9	1.6
RE-2X(St)HSAWAH 10T1.3	10x3x1.3	0.45	1.4	23.0	1.25	1.7
RE-2X(St)HSAWAH 12T1.3	12x3x1.3	0.45	1.5	24.0	1.25	1.7
RE-2X(St)HSAWAH 16T1.3	16x3x1.3	0.45	1.6	27.4	1.25	1.8
RE-2X(St)HSAWAH 20T1.3	20x3x1.3	0.45	1.7	30.4	1.25	1.8
RE-2X(St)HSAWAH 24T1.3	24x3x1.3	0.45	1.8	33.1	1.60	1.9
1.5mm ² , Multi-stripe						
RE-2X(St)HSAWAH 2T1.5	2x3x1.5	0.45	1.1	13.2	0.9	1.4

Caledonian Cable Code	RE-2X(St)HSAWAH					
	No. of Triples x3xCross 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.x3xmm ²	mm	mm	mm	mm	mm
RE-2X(St)HSAWAH 4T1.5	4x3x1.5	0.45	1.2	15.4	0.9	1.5
RE-2X(St)HSAWAH 5T1.5	5x3x1.5	0.45	1.2	17.1	0.9	1.5
RE-2X(St)HSAWAH 6T1.5	6x3x1.5	0.45	1.3	19.5	0.9	1.6
RE-2X(St)HSAWAH 8T1.5	8x3x1.5	0.45	1.4	21.1	1.25	1.6
RE-2X(St)HSAWAH 10T1.5	10x3x1.5	0.45	1.5	24.1	1.25	1.7
RE-2X(St)HSAWAH 12T1.5	12x3x1.5	0.45	1.5	24.9	1.25	1.7
RE-2X(St)HSAWAH 16T1.5	16x3x1.5	0.45	1.6	28.4	1.25	1.8
RE-2X(St)HSAWAH 20T1.5	20x3x1.5	0.45	1.7	31.6	1.25	1.9
RE-2X(St)HSAWAH 24T1.5	24x3x1.5	0.45	1.8	34.4	1.60	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



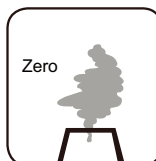
Low Toxicity
NES 02-713/NF C 20-454



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