



# Caledonian

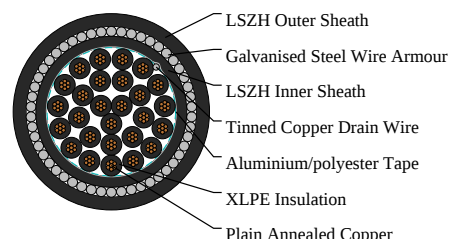
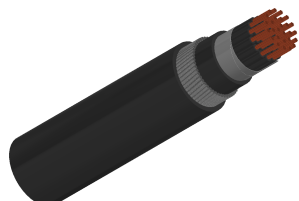
## EN 50288-7 XLPE & PE Insulated LSZH Sheathed Instrumentation Cables

[www.caledonian-cables.com](http://www.caledonian-cables.com)

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

RE-2X(St)HSAH 90°C / 500V 27C1.3



### APPLICATIONS

The LSZH sheathed cables are generally use for indoor installation and suitable for wet and damp areas. 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                                                                                                                                                            |

### VOLTAGE RATING



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500V

### 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.

Overall Screen: Aluminium/polyester tape with tinned copper drain wire, 0.5mm<sup>2</sup>.

Inner Sheath: LSZH compound.

Armour: Galvanised steel wire.

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 numbered

Outer Sheath: Black, 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): -5°C – +50°C

Minimum Bending Radius: 10 X Overall Diameter

### Electrical Properties

Conductor Area Size: 1.3 mm<sup>2</sup>

Insulation Thickness (Nominal) : 0.6 mm

Conductor Resistance (20°C) : 14.2 Ω/km

Insulation Resistance (20°C): 5000 MΩ.km(Min.)

Mutual Capacitance (1 kHz): 115 pF/m(Max.)

Capacitance Unbalance(1 kHz): 500 pf/500m

L / R (ratio) (max.): 40 μH/Ω

Operating Voltage: 500 V

Test Voltage Urms(Core to Core): 2000 V

Test Voltage Urms(Core to Screen): 2000 V

### DIMENSION AND PARAMETERS

| Caledonian Cable Code     | No. of Cores × Cross-sectional Area | Nominal Insulation Thickness | Nominal Inner Sheath Thickness | Diameter Over Inner Sheath | Nominal Armour Wire Diameter | Nominal Outer Sheath Thickness |
|---------------------------|-------------------------------------|------------------------------|--------------------------------|----------------------------|------------------------------|--------------------------------|
|                           | No.×mm <sup>2</sup>                 | mm                           | mm                             | mm                         | mm                           | mm                             |
| RE-2X(St)H<br>SWAH 27C1.3 | 27x1.3                              | 0.6                          | 1.3                            | 19.3                       | 1.25                         | 1.6                            |



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Rated voltage



EN 50288-7



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



Halogen Free  
IEC 60754-1



Low Corrosivity  
IEC60754-2/EN50367-3-2/3  
NF C32-074/NF C20-453



Low Smoke Emission  
IEC 61034-2 / EN 50268-2  
NF C32-073/NF C 20-902



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



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