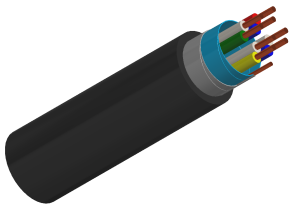
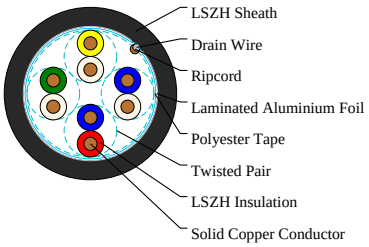
Caledonian
Telephone Cables
www.caledonian-cables.com marketing@caledonian-cables.com

INDOOR TELEPHONE CABLES

LSZH Insulated & LSZH Sheathed Switchboard Cables to DIN VDE 0815
T815J-H(St)H-Lg-4P08





APPLICATIONS

The installation cables are used for telephone and signal transmission and suitable for permanent installation on and under plaster in dry and damp rooms and for permanent installation on external walls. They are designed to handle low frequency analogue or digital signals for flexible installation.

STANDARDS

DIN VDE 0815

CABLE CONSTRUCTION

Conductors: Solid annealed bare copper as per VDE 0295/IEC 60228 Class 1.
Insulation: LSZH to DIN VDE 0207-4.
Twisted Pairs: Insulated conductors are twisted into pairs with varying lay length to minimize crosstalk.
Cabling Element: Twisted Pairs.
Cable Core Assembly: The twisted pairs are stranded to cable core in layers.
Core Wrapping: One or more non-hygroscopic polyester tapes are helically or longitudinally laid with an overlap prior to sheathing.
Screen: Laminated aluminium foil is provided for fully enclosing the core with an overlap.
Drain Wire: Drain wire with a diameter of 0.4mm is provided in cables up to 10 pairs.
Ripcord: Nylon ripcord may be placed parallel to the cores to facilitate sheath removal.
Sheath: LSZH to DIN VDE 0207-5.

COLOUR CODE

In 2 pair- cables:
Pair 1: a-wire red b-wire black
Pair 2: a-wire white b-wire yellow
In cables with 4 and more pairs:
a-wire of the 1st pair in each layer red, in all other pairs white
b-wire blue, yellow, green, brown, black in repeated sequence counting direction from the outside to the inside.

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +70°C
Temperature range during installation (mobile state): -20°C – +50°C
Minimum bending radius: 7.5 x Overall Diameter

Electrical Properties

1) Minimum Smoke Emission:IEC 61034, EN 50268 (New: EN 61034), VDE 0482-268 (New: VDE 0482-1034)
These standards specify a method to measure the generation of smoke from cables during fire. The result is expressed as percentage of light transmitted. Usually, the smoke density shall not be less than 60%.
2) Halogen Free: IEC 60754-1, EN 50267-2-1
These standards specify a method for determination of the amount of halogen acid gas evolved during combustion of compound. The hydrochloric acid yield should be less than 0.5%.
3) Non corrosive gases: IEC 60754-2, EN 50267-2-2, VDE 0482-267
These standards specify a method for determination of acidity of gas evolved during combustion of cables by measuring PH and conductivity. The specimen is deemed to pass this test if the pH value is less than 4.3 when related to 1 litre of water and conductivity is less than 10 µs/min.
4) Reduced Fire Propagation: IEC 60332-3C, EN 50266-2-4, VDE 0482-266-2-4
These standards specify a method for flame propagation test for bunched cables.
5) Flame Retardancy: IEC 60332-1, VDE 0482-265-2-1
These standards specify a method for flame propagation test for single core cables.
6) Temperature Index: BS EN ISO 4589-3, BS 2782 Part 1
These standards specify a method for measuring the temperature Index of materials. The temperature index shall be equal or greater than 280ºC.
7) Oxygen Index: BS EN ISO 4589-2, BS 2863
These standards specify a test for measuring the minimum oxygen concentration to support candle like combustion of plastics. The oxygen index shall not be less than 30%.

DIMENSION AND PARAMETERS

Caledonian Cable Code	No. of Pairs	Conductor Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Diameter over Insulation	Nominal Sheath Thickness	Nom. Overall Diameter	Approx. Weight
		mm²	mm	mm	mm	mm	mm	kg/km
T815J - H(St)H-Lg-4P08	4	0.5	0.8	0.4	1.6	1	11	135