



Caledonian

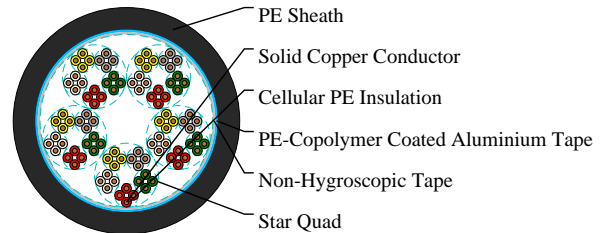
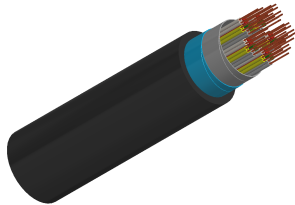
Telephone Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

OUTDOOR TELEPHONE CABLES

Cellular PE Insulated and LAP Sheathed Air Core Cable
TP816A-02Y(L)2Y-StIII-Bd-50P04



APPLICATIONS

The cables are designed for use as connection between central offices. The cables are suitable for installation in ducts, direct burial in the ground and also for aerial installation with integral suspension strand. Jelly filled option is for subscriber's cables installed underground or along the edge of pavement. An armoured option is offered for direct burial installations. A figure-8 self support option is offered for aerial installation.

STANDARDS

DIN VDE 0816

CABLE CONSTRUCTION

Conductors: Solid annealed bare copper as per class 1 of DIN VDE 0295/ BS 6360/IEC 60228.

Insulation: Cellular polyethylene 2Y12 type as per VDE 0207-2.

Twisted Pairs: Insulated conductors are twisted into pairs with varying lay length to minimize crosstalk.

Cabling Element: Star Quads.

Cable Core Assembly: 4 Cores are twisted into star quad. 5 star quads are stranded into a basic unit. 5 or 10 basic units each are stranded into one main unit. The star quads are grouped in units and stranded in layers to form the cable core. Standard make up is per VDE 0816 in the Cable Make Up Diagram.

Core Wrapping: One or more non-hygroscopic polyester tapes are helically or longitudinally laid with an overlap. These tapes furnish thermal, mechanical as well as high dielectric protection between shielding and individual conductors.

Moisture Barrier: A layer of aluminium tape (0.2mm) coated with PE-copolymer on one or both sides is applied longitudinally with overlap over the cable core to provide 100% electrical shielding coverage and ensures a barrier against water vapor.

Sheath: Black low or medium density polyethylene 2YM2 type as per VDE 0207-3, being able to withstand exposure to sunlight, temperature variations, ground chemicals and other environmental contaminants.

Ripcord: Ripcord may be provided for slitting the sheath longitudinally to facilitate its removal.

Spare Pairs (optional): Spare pairs may be provided for large pair cables.

Continuity Wire (optional): Tinned copper drain wire may be longitudinally laid to ensure electrical continuity of the screen.

COLOUR CODE



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Quads

The single core is identified by black ring markings:

Side Circuit 1

a-wire without marking

b-wire 1 mark distance 17mm

Side Circuit 2

a-wire 2 marks distance 34mm

b-wire 2 marks distance 17mm

Subunits

Basic colours for the wire insulation of the 5 star quads of a basic unit:

Quad 1 Red Quad 2 Green Quad 3 Grey Quad 4 Yellow Quad 5 White

The tracer units are coded with a red helix, all other units by a white binder.

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: 10 x Overall Diameter (unarmoured cables); 15 x Overall Diameter (armoured cables)

DIMENSION AND PARAMETERS

Caledonian Cable Code	No. of Pairs	AWG Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Diameter over Insulation	Nominal Sheath Thickness	Nom. Overall Diameter	Approx. Weight
			mm	mm	mm	mm	mm	kg/km
TP816A -02Y(L)2Y -StIII-Bd -50P04	50	26	0.4	0.2	0.8	1.8	15.5	275