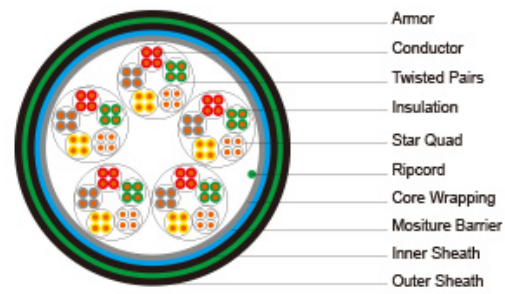
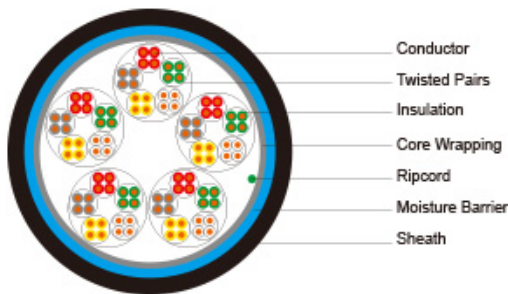


Cellular PE Insulated & LAP Sheathed Air  
Core/Jelly Filled Cables to DIN VDE 0816



<b>Application</b>	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.
<b>Standards</b>	DIN VDE 0816
<b>Construction</b>	
<b>Conductors:</b>	Solid annealed bare copper 0.4/0.6/0.8mm, as per class 1 of DIN VDE 0295/ BS 6360/IEC 60228
<b>Insulation:</b>	Cellular polyethylene 2Y12 type as per VDE 0207-2
<b>Twisted Pairs:</b>	Insulated conductors are twisted into pairs with varying lay length to minimize crosstalk
<b>Cabling Element:</b>	Star Quads
<b>Cable Core Assembly:</b>	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
<b>Core Wrapping:</b>	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
<b>Moisture Barrier:</b>	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
<b>Sheath:</b>	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
<b>Ripcord:</b>	Ripcord may be provided for slitting the sheath longitudinally to facilitate its removal
<b>Spare Pairs (optional):</b>	Spare pairs may be provided for large pair cables
<b>Continuity Wire (optional):</b>	Tinned copper drain wire may be longitudinally laid to ensure electrical continuity of the screen
<b>Optional Construction</b>	

<b>Jelly Filled Cable</b>	The cable core interstices are filled with petroleum jelly to avoid longitudinal water penetration within the cable. The water resistant filling compound is applied to the air space between non-hygroscopic tape and shield, shield and sheath within the cable core
<b>Armoured Cable</b>	Corrugated steel tape armour is applied over an optional inner polyethylene sheath with an overlap. An outer polyethylene sheath is applied over the armour

**Type Code**

<b>A-</b>	Outdoor Cable
<b>02Y</b>	Cellular Polyethylene (FOAM PE) insulation
<b>F</b>	Continuous core filling
<b>(L)2Y</b>	Laminated sheath(copolymer-coated aluminium tape laminated to PE outer sheath)
<b>SR</b>	Corrugated steel tape
<b>b</b>	Armouring
<b>T</b>	Messenger of galvanized steel wires
<b>StIII</b>	Star quad in local cables
<b>Bd</b>	Unit-type stranding

**Electrical Properties**

<b>Nominal Conductor Diameter</b>	mm	0.4	0.6	0.8
<b>Conductor Gauge Size</b>	AWG	26	-	20
<b>Conductor Size</b>	mm <sup>2</sup>	0.126	0.283	0.5
<b>Maximum Average Conductor Resistance @20°C</b>	Ω/km	143	63	34.6
<b>Minimum Insulation Resistance @500V DC</b>	MΩ.km	5000	5000	5000
<b>Maximum Mutual Capacitance @800Hz 95% of all values</b>	nF/km	40	40	40
<b>100% of all values</b>	nF/km	42	42	42
<b>Capacitance Unbalance @800Hz pair-to-pair</b>				
<b>K1 100% of values max</b>	pF/500m	980	800	800
<b>98% of values max</b>	pF/500m	420	400	400

<b>K9-12</b>	<b>100% of values</b>	<b>max</b>	pF/500m	800	300	300
	<b>90% of values</b>	<b>max</b>	pF/500m	200	100	100
<b>Maximum Conductor Loop Resistance @20°C</b>			Ω/km	300	130	73.2
<b>Impedance @0.8KHz</b>			Ω	994	665	500
<b>Maximum Average Attenuation @0.8KHz</b>			dB/km	1.45	0.91	0.68
<b>Dielectric Strength 50Hz</b>						
<b>Conductor to Conductor (2mins)</b>			V AC	500	500	500
<b>Conductor to Screen (2mins)</b>			V AC	2000	2000	2000
<b>Maximum Operating Voltage Peak Value</b>			V	150	225	225
<b>Nominal Insulation Thickness (Air Core)</b>			mm	0.2	0.25	0.3
<b>(Jelly Filled)</b>			mm	0.26	0.36	0.44
<b>Nominal Insulated Conductor Diameter (Air Core)</b>			mm	0.8	1.1	1.4
<b>(Jelly Filled)</b>			mm	0.92	1.32	1.68

**Mechanical 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)**

**Colour Code**

**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

**Dimensions And Weight**

Cellular PE Insulated and LAP Sheathed Air Core Cable VDE CODE: A-02Y(L)2Y ...x2x0.4/0.6/0.8 StIII Bd

