

## PVC INSULATED MULTIPAIR LIGHT CURRENT CONTROL CABLES TO ENA TS 09-6 UNSCREENED – SWA ARMoured



Signaling cable



UV resistant

Flame  
retardant

Fire retardant

Rodent  
resistantImpact  
resistantROHS  
compliant

### STANDARDS

ENA TS 09-6 issue 8 2012 / BS 7870-8-4: 2003

Flame propagation: BS EN 50265-2-1 and BS 7870-2

### DESCRIPTION AND APPLICATION

Cables from 2 to 200 pairs with 1/0.8 mm copper conductors. PVC insulation, twisted into pairs, stranded in layers or units. Bedding of PVC, steel wires armoring and external black PVC sheath.

These cables are primarily intended for use indoors or outdoors for fixed installations on walls and metallic structures. They may be used where there is a high risk of fire propagation along cable runs, especially where cabling density is high. They operate at tensions up to 110 Vac or 150 Vdc but should not be used for direct connection to low impedance sources, e.g. public mains electricity supply.

### CONSTRUCTION

- **Conductors:** Annealed copper single strand of 0.80 mm nominal diameter.
- **Insulation:** PVC type TI X. Nominal thickness 0.3 mm.
- **Cabling elements:** Pairs.
- **Lay-up:** 2-pair cable shall be laid-up as a quad. 5-pair and 10-pair cables shall be laid up to form a compact and symmetrical cable. 20-pair to 200-pair cables shall be constructed from the required number of cabling units. Pair identification as per BS 7870-4.
- **Core wrapping.** Plastic tape, longitudinally applied with overlap.
- **Bedding:** PVC compound type TI 1, conforming to the requirements of BS 7655 3.1.
- **Armour:** galvanized steel wires helically applied.
- **Outer sheath:** Black PVC compound type TM 1 to BS 7655-4-1.
- **Sheath marking :** The outer sheath shall be embossed, at regular intervals of about 500 mm, in one line (cables with  $d \leq 15$  mm) or two lines (cables with  $d > 15$  mm) with the following legend:
  - *ELECTRIC CABLE – 100 V – BS 7870-8-4 – CABLESCOM – (year of manufacture)*  
*Length markings in white ink can also be printed at the option of the client*
  - *Other type of markings is also possible according to the customer.*



All drawings, designs, specifications and particulars of weights, dimensions, etc. in this documentation are only indicative and must not be considered contractual.

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<b>ELECTRICAL CHARACTERISTICS (20°C)</b>	<b>0.8</b>
Maximum loop Resistance ( $\Omega/\text{km}$ )	73.6
Minimum insulation resistance (20°C, 500 V, $\text{M}\Omega\text{xkm}$ )	
• Between conductors	80
• Between the shield and the armour	1
Maximum mutual capacitance ( $\text{nF}/\text{km}$ , 100 Hz)	150
Maximum capacitance unbalance ( $\text{pF}/500\text{m}$ , 1000 Hz)	
• 2-pair cable	800
• Above 2-pairs. Any pair combination	400
Maximum mutual inductance ( $\mu\text{H}/500\text{m}$ , 1000 Hz)	915
Dielectric strength (Vdc, 1 min)	
• Pair to pair and pairs to armour	3000

### MECHANICAL CHARACTERISTICS

Temperature range: from -20° C to +70° C

Installation temperature: 5°C to 50°C

Bending radius: 15 x R<sub>cable</sub>

### DIMENSIONS AND WEIGHTS

Diameter: 0.80 mm		SWA	Nom.	Nom.	Std. Length
Code	No. Pairs	wire Diam. (mm)	Cable Diam. (mm)	Weight (kg/km)	(m)
EA4Y1CE80000202N	2 (1Q)	0,90	10,0	209	2000
EA4Y1CE80000502N	5	0,90	14,1	363	2000
EA4Y1CE80001002N	10	1,25	16,9	591	2000
EA4Y1CE80002002N	20	1,25	20,1	833	2000
EA4Y1CE80002402N	24	1,25	21,2	926	2000
EA4Y1CE80004002N	40	1,60	25,9	1442	2000
EA4Y1CE80006002N	60	1,60	29,9	1875	1000
EA4Y1CE80010002N	100	2,00	39,1	3124	1000

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