

## LSZH INSULATED AND SHEATHED MULTIPAIR LIGHT CURRENT CONTROL CABLES TO ENA TS 09-6 – SHIELDED AND ARMoured, GENERATION



### STANDARDS

Generally in accordance with ENA TS 09-6 issue 8 2012 / BS 7870-8-4: 2003  
Flamme propagation: BS EN 50265-2-1 and BS 7870-2

### DESCRIPTION AND APPLICATION

Cables from 2 to 200 pairs with 0.8 mm copper conductors. LSZH insulation, twisted into pairs, stranded in layers or units. Collective screen of aluminium tape, bedding of LSZH, steel wires armouring and external black LSZH 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 cooper single strand of 0.80 mm nominal diameter.
- **Insulation:** LSZH material. Nominal thickness 0.3 mm.
- **Cabling elements:** Colour coded pairs as per BS 7870-4 table 1.
- **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. Stranding of the 50 pair cable 2x20+1x10. Unit identification by numbered tapes.
- **Core wrapping.** Plastic tape, longitudinally applied with overlap.
- **Collective screen:** Longitudinal 0,15 mm thick aluminum screen with a backing adhered to the bedding and a 0.8 mm tinned copper drain wire.
- **Bedding:** LSZH compound. Thickness as per ENA TS 09-06 table E3(c).
- **Armour:** A single layer of galvanized steel wires helically applied.
- **Outer sheath:** UV resistant black LSZH compound. Thickness as per ENA TS 09-06 table E3(c).
- **Sheath marking** : The outer sheath shall be marked with white ink, at regular intervals of about 500 mm, in one line with the following legend:
  - *ELECTRIC CABLE – 100 V – BS 7870-8-4 – CABLESCOM – (year of manufacture) + Length markings*
  - *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, $M\Omega \times \text{km}$ )	
• 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
Dielectric strength (Vdc, 1 min)	
• Pair to pair and pairs to screen	3000

### MECHANICAL CHARACTERISTICS

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

Bending radius:  $15 \times R_{\text{cable}}$

### DIMENSIONS AND WEIGHTS

Diameter : 0.80 mm					
Code	No. Pairs	steel wires diam (mm)	Cable Diam (mm)	Aprox. Weight (kg/km)	Delivery Length (m)
EA4Y2CF80005002N	50	1,6	34,5	2190	1000

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