

Technical Specification

T0537

(Formerly SE-882)

35mm and 70 mm Two core AC Signal main cable-Non Halogen Low-smoke

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1 Purpose

- 1.1 The purpose of this Specification is to define requirements for 1000 V rated cable which is used for providing power from sub-stations to all signalling equipment.
- 1.2 The cable shall be suitable for running in trackside cable-runs in both open and tunnel areas.
- 1.3 In normal operation the cable shall carry a nominal 600 V electrical supply within a frequency range of $33\frac{1}{3}$ Hz – 125 Hz.

1.4 This standard has been significantly changed from the previous edition.

2 Scope

- 2.1 This Specification applies to 2 core non-armoured ac main signal cable, carrying the 600V ac power supply for trackside signalling equipment.

3 Performance Requirements

3.1 CONDUCTOR

- 3.1.1 Each conductor shall consist of stranded tinned annealed copper wire and shall comply with the requirements for class 2 conductors quoted in BS 6360.
- 3.1.2 There shall be at least nineteen and not more than twenty-two strands in each conductor.
- 3.1.3 Each circular conductor shall be of a diameter necessary to achieve the cross-sectional area nominated on the order (35 mm² or 70 mm²).

3.2 INSULATION

The conductors shall be covered with an extruded polymeric material, of the manufacturer's choosing, which complies with the requirements of clause 6.2 of BS 6004.

3.3 SHEATH

The overall sheath shall comprise an extruded material, of the manufacturer's choosing, with a minimum radial thickness of 3 mm at any point.

3.4 CONSTRUCTION

- 3.4.1 Fillers may be included if they are necessary to realize a circular cross-section of the finished cable.
- 3.4.2 Tapes around the insulated conductors may be used.
- 3.4.3 The insulation and sheath layers shall have a concentricity of not less than 70 %.
- 3.4.4 The overall diameter of the finished cable shall be within the following tolerances:

Conductor size:	35 mm ²	70 mm ²
Minimum overall diameter:	24 mm	27 mm
Preferred overall diameter:	26 mm	29 mm
Maximum overall diameter:	28 mm	35mm