

BRITISH TELECOMMUNICATIONS plc

SPECIFICATION CP14

UNDERGROUND NETWORK POWER FEED CABLE 54V DC AND CABLE ENCLOSURES

SCOPE The purpose of this specification is to provide Communications Providers (CPs) with information on the minimum requirements for an underground power feed cable and associated enclosure for installation in the Openreach Underground Network Infrastructure.

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1. GENERAL

- 1.1** Issue 1 suffixes the first issue of a specification. When a specification is re-issued the issue number is advanced sequentially.
- 1.2** Except when a specification is completely re-written, a star in the margin adjacent to the main clause number indicates an amendment. A vertical line in the margin indicates the particular portions(s) amended.
- 1.3** When a specific issue of a supplementary specification is not quoted, then the latest issue of that specification shall be followed.
- 1.4** If any further information in connection with the specification is required, application should be made to the address given at the end of this specification.

2. LEGAL AND REGULATORY REQUIREMENTS

Notwithstanding the contents of this document it is and remains the Communications Provider's responsibility to ensure that any of their cables, equipment or apparatus meets current legal and regulatory requirements and continues to meet those requirements should they change in the future and nothing in this document seeks to exclude or limit that liability in any way. It is solely for the Communications Providers to ensure that any of their cables, equipment or apparatus are safe, secure and do not cause directly or indirectly harm to any person or thing.

Any identification markings referred to in this document should be and remain legible for the entire period the Communications Provider uses PIA.

3. UNDERGROUND NETWORK POWER FEED CABLE 54V DC

3.1 ENVIRONMENT AND INSTALLATION

The cable shall be of robust construction suitable for operational use in the Openreach underground duct network and Openreach underground jointing chambers.

It shall be suitable for underground installation by direct pulling with a cabling rope.

3.1 CABLE DESIGN

The cable shall be designed to carry the maximum electrical load of the installation that it is intended to be operated with and for any potential increase in load.

It shall be designed to carry 54 volts DC.

The insulated conductor colours for DC voltage operation shall be in accordance with the latest edition of BS7671 (IET wiring regulations) for earthed and unearthed operation.

The completed cable shall be flexible and the cable sheath and insulated conductors shall not suffer damage when subjected to bending. The minimum bend radius of the completed cable shall be 4 x the outer diameter of the cable.

3.2 CABLE SHEATH AND IDENTIFICATION MARKING

The sheath shall be of a suitable robust material that is designed for underground duct application. The sheath shall be coloured red.

The sheath shall be marked at 1 metre intervals in a contrasting colour with the following:

CP Name

54 Volts DC

4. CABLE ENCLOSURE

4.1 ENVIRONMENT

The enclosure shall be suitable for use in Openreach underground jointing chambers.

4.2 DESIGN

It shall be compatible with the cable that it is intended to be used with.

There shall be no sharp edges or projections.

The waterproof rating of the enclosure shall be IP68.

It shall be suitable to house cables carrying DC voltage.

The connectors within the enclosure shall be designed to carry DC voltage.

4.3 IDENTIFICATION MARKING

The outside of the enclosure shall be marked in a contrasting colour with the following:

CP Name

Its operational use/purpose

Its operational DC voltage

5. CABLE AND ENCLOSURE MATERIALS

All materials used shall be suitable for their intended use and installed service lifetime of the cable and enclosure.

The cable and enclosure shall conform to the latest COSHH regulations.

6. REFERENCES

British Standard	BS7671 (Latest Edition)
COSHH Regulations	Latest Issue

7. CHANGE RECORD

ISSUE	Date	Change
Issue 1	July 2017	New document
Issue 2	August 2017	Legal and Regulatory Requirements Update

8. SPECIFICATION AUTHORITY

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END OF SPECIFICATION