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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 13993.4-2014

Replacing GB/T 13993.4-2002

**Optical fibre cables for telecommunication-Part 4: Outdoor
optical fibre cables for access networks**

通信光缆 第4部分：接入网用室外光缆

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Foreword

GB/T 13993 "communication cable" includes the following sections.

- Part 2. Outdoor optical fiber core network;
- Part 3. Indoor optical fiber cabling;
- Part 4. Outdoor optical fiber access networks;

This section GB/T Part of 413,993.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 13993.4-2002 "communications cable series - Part 4. Outdoor optical fiber access networks", and

GB/T 13993.4-2002 compared, in addition to editorial changes, the major technical changes are as follows.

- Standard name "communications cable series" to "communication cable";

--- Increasing the cable allows the use of other suitable structure type [see 3.2b), 2002 edition 3.1b)];

Filling requirements --- cable to allow the use of suitable water-blocking material and a suitable water-blocking manner [see 3.2c), 2002 Edition 3.1c)];

--- Increased by flame retardant cable should test requirements [see 3.2g), 2002 edition 3.1h)];

Fiber optic cable type --- involved in, B1.1 class subdivided into B1.1a, B1.1b, B1.3 class subdivided into B1.3c, B1.3d, B4 class subdivision

As B4b, B4c, B4d, B4e, increasing the B5 class based on optical fiber and ITU-TG.656.2010 specified performance requirements increase

Optical fiber and the B6a class based ITU-TG.657.2009 specified performance requirements (see 3.3.1 and 44, 2002 edition.

--- Number of cores commonly used discrete fiber optic cable has been adjusted to remove the 10, 14 and 42, an increase of 108, 120 and 132 (see 3.3.2 and . 44, 2002 Version 3.2.2);

--- Cancel specific provisions identifying chromatography, to apply GB/T 29233 (see 41, 2002 Version 4.1.);

1 Scope

GB/T 13993 provisions of this part of the outdoor fiber optic cable (hereinafter referred to as cable) structure type and suitability requirements, specifications, manufacturing standards

Length, fiber characteristics, mechanical properties, environmental performance and installation requirements.

This section applies to outdoor access network with pipes, buried, underwater and non-self-supporting aerial cable laying, in addition to structural and mechanical requirements

Outside, it is also applicable to other cable laying way of self-supporting aerial cables and other micro gas blowing.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 7424.1-2003 total cable specification - Part 1. General

GB/T 9771 (all parts) with a single-mode optical fiber communication

GB/T 29233 pipeline, buried and non-self-supporting aerial installation with single-mode fiber optic outdoor communication YD/T 908 cable type designation YD/T 979 with fiber optic technology requirements and test methods Category 3

3.1 General

This section is divided cable types, sizes and preparation of models in accordance with YD/T 908's.

3.2 Type

Specific structure type cable should be specified in the product standard, the common structure type and scope of the following requirements.

a) fiber optic cable can be discrete optical fibers or other suitable optical fiber units, the same batch of the same type of fiber optic cable should use the same

Design, the same material and the same manufacturing process of the optical fiber.

b) the center of the core can be used to strengthen the loose tube layer stranded structure, central tube structure, the skeleton structure or other suitable structure type.

c) In addition to steel wire armored part, cable structure should have the water resistance performance of the whole cross-section, for cable in the gap should apply barrier

Water, water blocking materials and appropriate manner in which loose tube and central tube should be filled thixotropic compound.

d) cable can be used metal reinforcing member, may also be non-metallic reinforcing member.

e) the sheath should be resistant to aging black polyethylene jacket, in addition to outside the metal-free cable sheath also has a metal moisture barrier. But 15m ~

Under 60m deep water laying cable should be sealed with a metal sheath.

f) When buried, underwater and some overhead laying, should the use of longitudinally corrugated steel tape armor or (and) steel wire armored polyethylene coat composition The outer sheath.

g) fire-retardant fiber optic cable in the plastic sleeve plastic sleeve should halogen, flame retardant cable should be through trial-related requirements.

h) when rodent or termite requirements should use appropriate protective sheath.