

DKE ignites turbo for fiber optic expansion

- **More speed: DKE co-initiator of new DIN standard 18220, which ensures shorter construction times and lower construction costs when laying fiber optic cables**
- **More safety: VDE Guideline 0800-720 defines material requirements for all network elements from the data center to the house connection**
- **More personnel: VDE Broadband Initiative standardizes further training for skilled workers**

(Frankfurt a. M., 05.07.2023) To extend digitization in Germany, the expansion of the fiber optic network is essential. The German government's gigabit strategy states that by 2030 there should be fiber-optic connections to the home everywhere people live and work. By 2025, the number of connections should be three times as high. However, this is hampered by complex laying procedures, uncertainties in the selection and installation of network elements, and the omnipresent shortage of skilled workers. To accelerate the expansion, the DKE is creating the technical or professional basis with current standards and guidelines on three levels. "Whether it's home office use in urban and rural areas or streaming media content: Germany needs fiber optic expansion to keep up internationally. That's what our work is aimed at", explains standardization manager Thomas Sentko from DKE.

More speed in fiber optic expansion: DIN 18220

Currently, classic civil engineering is often used to lay empty pipes and fiber optic cables at a depth of around 60 cm. The catch: high time requirements, disruption to road traffic and high costs. Alternative laying methods such as trenching, milling and plowing, on the other hand, work with miner-deep slots and cable trenches that are sawed or milled into the asphalt. Labor time is reduced from days to hours, the impact on residents and road traffic is minimal, and costs are reduced.

As early as 2019, DKE had suggested that a standard for these laying procedures would positively influence the official approval procedures and accelerate fiber optic expansion. Based on a template that DKE developed with various experts, DIN 18220 will now be published at the end of July. It describes the procedures for slots and line trenches at different depths, for laying the fiber optic media and restoring the road, and creates clarity for all parties involved.

More safety in fiber optic rollout: VDE Guideline 0800-720

Uniform specifications for the materials to be used are a further step toward ensuring speed, transparency and thus also technical safety in fiber optic expansion. VDE Guideline 0800-720, published in April 2023, deals with the material requirements for the elements used in the standardized expansion of fiber optic networks. The focus is on the area between the data center and the house transfer point, referred to in the market as network level 3. This provides users with a clear framework of how, for example, distribution housings, microducts or joints must be designed to ensure that the expansion measures meet all technical requirements. Concrete assistance in designing broadband networks for municipal utilities, network operators, project sponsors and installation companies is also included in the guideline.

More staff for fiber optic expansion: standardized training

All the technical specifications won't help if there's no one there to implement them. Although it is not possible to bring more personnel into the market via a further training initiative, existing workers can be qualified more quickly in the correct technical manner. In the VDE initiative Gremienverbund Breitband, various experts are therefore working together with training institutions on standardized training modules. The starting signal was given in April 2023 by VDE Guideline 0800-200, which describes a basic seminar that is already being offered. The target groups of these and future modules are support staff, skilled workers in the field of mechanics and electronics, technicians, engineers and holders of the master craftsman title. "We are opening up learning paths that lead to a qualification as an infrastructure, civil engineering, assembly or planning specialist and ensure that the necessary expertise for fiber optic expansion is available as quickly as possible", explains Thomas Sentko from DKE.

About DKE

The DKE German Commission for Electrical, Electronic & Information Technologies (DKE) is the national platform for about 9000 experts from industry, science and public administration to elaborate standards and safety specifications for electrical engineering, electronics and information technology. Standards support global trade and, among other things, the safety, interoperability and functionality of products and systems. As a competence centre for electrotechnical standardization, the DKE represents the interests of German industry in

European (CENELEC, ETSI) and international standardization organizations (IEC). In addition, the DKE provides comprehensive services in the field of standardization and VDE specifications.

For more information, visit www.dke.de

About VDE

VDE, one of the largest technology organizations in Europe, has been regarded as a synonym for innovation and technological progress for more than 130 years. VDE is the only organization in the world that combines science, standardization, testing, certification, and application consulting under one umbrella. The VDE mark has been synonymous with the highest safety standards and consumer protection for more than 100 years.

Our passion is the advancement of technology, the next generation of engineers and technologists, and lifelong learning and career development “on the job”. Within the VDE network more than 2,000 employees at over 60 locations worldwide, more than 100,000 honorary experts, and around 1,500 companies are dedicated to ensuring a future worth living: networked, digital, electrical. Shaping the e-dialistic future.

The VDE (VDE Association for Electrical, Electronic & Information Technologies) is headquartered in Frankfurt am Main. For more information, visit www.vde.com

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