

BETAtrans® GKW-ENX C-flex R DATA 105 Ω LZB

Unique special-purpose cable for reliable LZB signal transmission



Robust, halogen-free and electron-beam cross-linked data cable with enhanced fire performance and high temperature resistance. The cable sheath meets the requirements of Class M according to EN 50306-1 and offers enhanced resistance to UV radiation, oil and fuels.

Designed for continuous train control

Continuous train control, known as LZB, is used to specify and monitor the permissible speed of trains. For this purpose, the trackside control centre transmits driving commands, maximum speeds and braking distance information, among other data, to the vehicle. Signal transmission is based on a highly specialised inductive system. This requires a data cable with precisely defined electrical characteristics.

Our **BETAtrans®** GKW-ENX C-flex R DATA 105 Ohm LZB reliably maintains the specified capacitance over cable lengths of up to 130 m. In combination with the inductance of the transmission system, this ensures the required characteristic impedance and reliable signal transmission.

Benefits

- Cable lengths to the receiving antennas of up to 130 m
- Cost savings through reduced additional hardware requirements for long train formations
- Fire protection according to EN 50306-4
- Complies with EN 45545-2
- Operating capacitance at 50 kHz: 53 nF / km
- Maximum conductor resistance at 20 °C: 13.7 Ω / km
- Characteristic impedance at 1 MHz: 105 $\Omega \pm 30 \%$
- Halogen-free
- Good resistance to media
- Very good low-temperature resistance
- Weather-resistant
- Low fire load

Greater range, less hardware

Cable lengths of up to 130 m enable train formations with an overall length of more than 200 m without the need for additional LZB onboard units. This reduces both hardware requirements and costs. The cable is also suitable for integration into a hybrid cable used in inter-car connections.

Rely on our expertise and experience

With a high level of in-house manufacturing and Swiss quality, we develop and produce customised cable solutions for the most demanding environments. Particularly where system safety and reliability are critical, our customers benefit from our many years of experience and technical expertise.

Studer Cables stands for innovation, quality and sustainability. The long service life of our products also contributes to the efficient use of resources throughout the entire product lifecycle.



	Rated voltage	Operating temperature at conductor (fixed installation)	Construction / cross-section	Operating capacitance core / core
BETAtrans® GKW-ENX C-flex R DATA 105 Ω LZB	300V	-40 to +90 °C	1 × (2 × 1.5) mm ²	≤53 nF/km



Further information can be found in our data sheets on our website: <https://studercables.com/en/products/>

In addition to high-quality products, Studer Cables offers comprehensive consulting, precise calculations and a wide range of additional services. We will be happy to assist you personally with any questions.

Studer Cables AG

Herrenmattstrasse 20 • 4658 Däniken • Switzerland • Phone: +41 62 288 82 82
E-mail: info@studercables.com • www.studercables.com