

Preventive cable monitoring system MPX V3

The MPX V3 system allows early and systematic detection of declining quality of the cable infrastructure in railway systems. The system may be integrated into existing signal boxes free from interferences.

Through continuous evaluation of the cable quality and patented sensor technology for determining moisture in cables and distribution systems, recommendations for preventive maintenance can be derived in order to intervene before failures occur.

For this purpose, the insulation values of two free cable cores are measured both to one another and to earth in the MΩ range. Based on these measurements, it can determine whether and when a failure of the cable is likely. In addition, moisture values measured in the nodes provide information about possible causes of declining cable quality. This means that maintenance measures can be planned more efficiently and train delays due to infrastructure failures can be reduced.



Monitoring of up to 95 nodes



Early detection of insulation and moisture defects



19 measuring channels (lines) for insulation and moisture monitoring



4 measuring channels for recording of interfering voltages

Patented system



The control unit monitors and analyses the lines.

© Bayka AG



All common railway cable types can be monitored by the system - only the cable-specific parameters have to be stored.



Recording of moisture and insulation values using patented sensors.

Evaluation via different channels



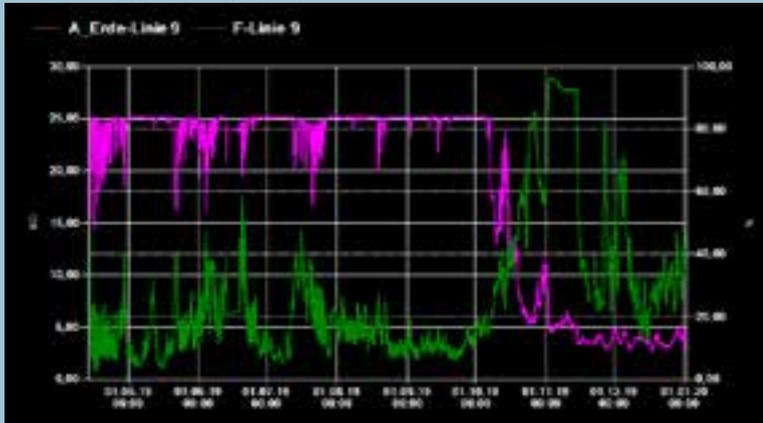
LTE / WAN interface

You will receive an e-mail notification if values fall below the defined threshold values.



Semi-annual data analysis and recommendations for action

We can provide you a semi-annual assessment of your cable infrastructure including recommendations for action.



Graphic display of the measured values directly on the 17-inch HMI or via remote access

TECHNICAL DATA

Dimensions control unit (L x W x H)	500 mm x 500 mm x 210 mm
Dimensions sensors	28,3 mm x 18,3 mm x 10 mm
Total weight	26,6 kg
Voltage range	90 V – 264 V AC
Frequency range	47 Hz – 63 Hz
Maximum current consumption	1,34 A at 230 V
Maximum power consumption	300 VA
Recommended fuses	4 A slow-blow or LS C 10 A
Insulation resistance	>100 MΩ / 500 V DC
Impulse voltage	L-N 2 kV
Installation	Grounded or ungrounded
Operating conditions control unit	Dry installation, non-condensing // 0 °C to +50 °C, frost-free, corrosion-protected

Free from interferences to the higher level system

- » Measurement on free cable cores
- » Low measurement voltage ± 12 V DC
- » Low measurement current $\leq 10 \mu\text{A}$
- » Product approved by DB Netz AG, PF-2021-72

System Add-Ons

- » Integrating data of the earth fault indicator Bender „IRDH265“ is possible
- » Monitoring of cables for interfering voltages
- » Connecting several systems via a multi-router system