



Measuring System for Overhead Power Lines

Application:

This measuring system is suitable to locate irregularities of the line impedance (e. g. short circuits, interruptions or intermediate conditions) in switched off overhead power lines. The system is applicable to lines of all voltage levels. The most important application is commissioning test of the overhead power lines before connecting power to avoid damages by travelling waves or danger to life.

Performance features:

Basic device for all measurements is the reflectometer Teleflex M, that is connected to the power line through a special transfer system.

The set distinguishes itself by

- very simple to control
- very high resolution in short range as well as in long-distance areas
- high signal-noise ratio and high dynamic range
- large display of diagrams on a colour TFT Display
- possibility to display difference diagrams of a good "reference" and a "faulty" line (both from a live display and from a database system)
- internal memory for 35 diagrams and additional set-up data (no loss of data if the Teleflex M is off)
- ports for PC and printer

Technical data Measuring System for Overhead Power Lines

1. Standard System

Maximum range approx. 306 km at $v/2 = 149.9 \text{ m}/\mu\text{s}$
Output voltage max. $40 V_{pp}$, max. impulse width $5 \mu\text{s}$

2. Long Distance System with impulse generator

Maximum range approx. 1,000 km at $v/2 = 149.9 \text{ m}/\mu\text{s}$
Output voltage max. $1,500 V_{pp}$ at 300 Ohms (5 kW pulse power), max. impulse width $14 \mu\text{s}$
Filter system with 100 kHz, 300 kHz, 1 MHz for attenuation of strong noises

Basic device of all systems is the Teleflex M as a stand-alone unit or as installed one in a measuring system. A stationary installation is available as well. All measurements can be taken in single, two or three phase mode (one transfer system per phase is required).

For more technical data: Teleflex M



Technical Data Teleflex M:

Measuring range:	80 m to 160 km, adjustable in steps
Pulse widths:	50 ns, 100 ns, 200 ns, 500 ns, 1 μs , 2 μs , 5 μs
resolution:	max. 0,2 m
Max. sample rate:	100 MHz
Measuring rate:	≥ 5 pictures / s
v/2-settings:	10 ... 150 m/ μs , respective in ft/ μs or as normal velocity of propagation
Display:	10,4 "-Color-TFT, 640 x 480 Pixel
Memories:	35 locations
Languages:	German, Englisch, Russian,
Interfaces:	RS 232 for PC (Winkis) Centronics for printer
Power supply:	110 ... 240 V, 50/60 Hz, 50 VA
Dimensions: (W x H x D)	483 x 221 x 258 mm,
Weight:	ca. 8,5 kg
Oper. temperature:	-10 to +50 °C
Storage temperature:	-20 °C to +60 °C

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DIN ISO 9001