The new generation of fault location systems

Centrix

Benefits

- **EasyGo operating concept** easyGO by sebaKMT
- **Automatic data storage and logging**
- **Central control of all test van functions**
- **Integrates the most innovative pre-location methods**
- **Highest safety standard**

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The Centrix test van system from SebaKMT

The Centrix

The experiences and feedback from daily use and the suggestions from many users have contributed to the unique operating concept and will continue influencing the functionality of the Centrix system. In this way, a test van system has been developed that continuously sets new standards:

– User friendly
– Fast and efficient
– Arc reflection pre-location methods up to 80 kV
– Arc burning with burn take over
– Automatic analysis of the test data
– User-specific reports in PDF format
– Online documentation and help

All standard processes run automatically with the help of single button jog dial operation. The user can fully concentrate on his actual task – the fault location.

The operating concept

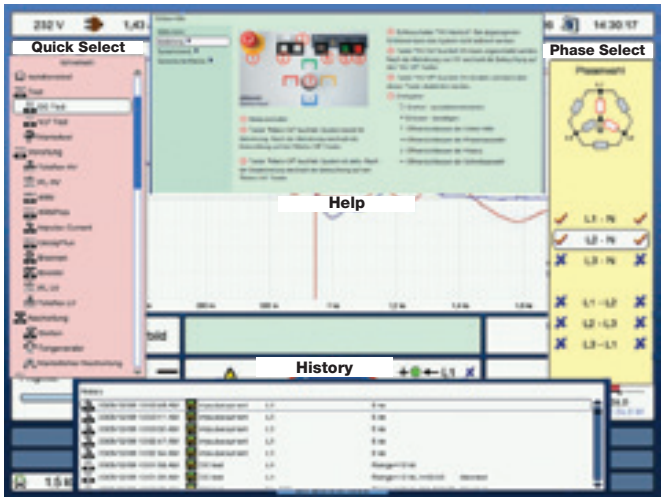
The control of the Centrix fault location system consists of a large monitor and a free positionable control panel, the control unit. This unit contains the central control element of the system – the Jogdial. The Linux® based operating system is very stable.

The Centrix system stores all test and measurement data automatically. Data evaluation and transmission can be done easily. The Jogdial serves as control of all system functions. Via the Jogdial permit a direct access the online user manual, the test history, the phase selection and a quick menu. Operatinal steps which occur frequently during operation are automatically pre-selected by the Centrix system. The user then simply confirms the next operating step by pressing the Jogdail – simple and direct!

Control Panel

Automated procedures

When using reflection methods, automatic functions determine the end of the cable and set the ideal parameters for the measurement range and method. The end as well as the fault location are automatically determined. For all pre-location methods, the end is immediately indicated by a marker. Due to the consistent ongoing development of the proven high voltage pre-location methods and due to the high performance of the software systems, excellent results are produced, even on faults which were previously hard to locate. The History function stores all measurement results automatically. No measurement will be lost. After seven days, the measurements are compressed and stored in daily files.



Examples of menus

In addition to its normal operation, the Jogdial is also used to select the side menus. These side menus provide easy access to the “Phase Selection”, “History”, the “Quick Select” as drop down menu and the “Help” function with online manual. Individually definable printed records permit these to be directly adapted for company-specific forms.

Centrix

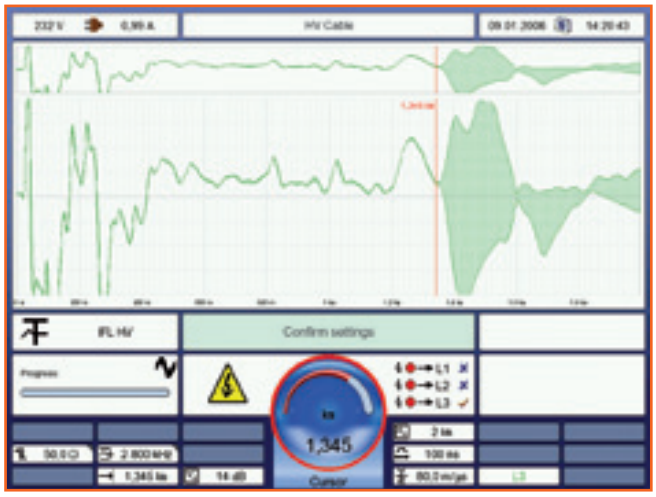
Test

The integrated test, using DC, 0.1 Hz Cosine Rectangular Wave voltage or a Sinusoidal Wave form (54 kV 0.1 Hz VLF), permits tests to be carried out throughout the entire medium voltage range. The DC tests are possible up to a maximum voltage of 40 or 80 kV. Test currents with a maximum 600 mA enable direct burning with the Centrix system, even without the use of external power burn units.

A fully integrated insulation tester up to 1 kV, capacitance measurement and sheath tests offer additional applications for all necessary maintenance work on cables and accessories.

Pre-location

In addition to the proven Decay travelling wave method and the impulse current methods (ICE), all other proven arc reflection methods can be integrated into the Centrix. The Centrix also offers the ARM* process in a new version which has been optimised for shorter distances. Alternatively, for greater distances, ARM* Plus (up to 32 kV) and Decay Plus (up to 80 kV) are available. The new ARMslide technology provides a choice of displaying up to 15 reflectograms out of one ARM shot.



ARM*- and ARM* Plus Reflectograms

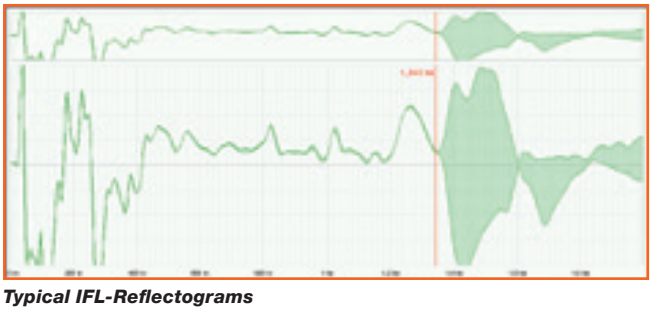
As a further feature, the Centrix includes the ARM burning Technology, which permits the monitoring of the fault location with a reflection measurement, during the burn process. The burning process can thus be controlled and automatically provides a pre-location result. For a cable preserving operation, the ARM burning allows the burn duration to be as short as possible Accordingly, the most effective pre-location methods are available to the Centrix.

One of the most progressive methods of fault location is the ARM* Plus or Decay Plus double surge method, especially for higher voltage levels and long cables. The first step is a discharge from a surge generator or with DC voltage, to be able to cause a breakdown at the fault location. In a second step, the duration of the arc resulting from the breakdown is automatically extended by a second discharge from the 4 kV surge module and is then measured with the ARM* Plus or Decay Plus method. This results in perfect fault traces.

IFL-Modus

For intermittent faults, the Centrix has an IFL mode available. This IFL Mode can save a lot of time, particularly in the area of branched low voltage distribution. Changes caused by short circuits that would only be visible as short reflections are clearly recognised by their envelope.

Therefore it is not necessary to know the exact time at which the change occurs as this is immediately and permanently visible. This technology allows the simple verification of the exact fault positions and their Tee's in a branched low voltage network.



Typical IFL-Reflectograms

*ARM=ARC Reflection Method

We are happy to provide you with information!

Pinpointing

With a comparably low weight, dues to powerful surge modules with 1280, 1750 or 2560 Joules, the Centrix can produce a high surge energy at voltage levels from 2 to 32 kV. Together with the new digiPHONE+, acoustic pinpointing thus becomes a simple, fast and reliable process.

Four voltage levels from 5 to 20 kV enable sheath testing and, via the step voltage method, sheath fault pinpointing with a pulsed outout. The pinpointing technologies are rounded off by a powerful, integrated 200 W audio frequency transmitter. This supports the patented SignalSelect technology as well as the direct and capacitive step voltage method with AC voltage. These system options are supplemented by custom-made solutions, which we adapt as required to our customer requirements for the Centrix test van system,.

Rear view

Example of test van control space

digiPHONE+

For more information, see:
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Our range of products: Equipment and systems to locate faults in power and communications networks, as well as for leak location on pipe networks · line location equipment · CCTV inspection · seminars · service · contracting.

Technical data subject to change without notice.

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