



Unisat

**Testing and Fault
Locating Unit**



**Small, Universal Testing
and Fault Location Unit for
low and Medium Voltage
Networks**

sebaKMT



The UniSat System

The UniSat is the ideal equipment for operators of low and medium voltage networks, who want a small, cost-effective but nevertheless efficient and universal fault location system. Its small dimensions permit it to be integrated into small, mobile vehicles (eg. VW T4, Renault Rapid, etc.). Occurring cable faults in power distribution networks, even in areas with limited accessibility, can be located simply and quickly and with great accuracy, with this system.

The Module SPG 32 contains all the high voltage components, as well as the control and security circuits of the UniSat system.

It produces the direct voltage necessary for the cable test according to DIN VDE 0276-620 and 621 and also the required surge voltage for the pinpointed acoustic location up to 32 kV maximum.

All necessary features to conduct short-term arc reflection method, the current pulse procedure and the voltage uncoupling method are installed on the high voltage module.

The integrated 5 kV direct voltage source serves the sheath tester according to DIN VDE 0276-620 and 621 and also the sheath fault location.

By aid of the digital reflectometer Kabellux 31-E, cable fault relocation by direct, comparative and differential measurement, as well as the arc reflection method, current impulse method and voltage uncoupling is possible.



Technical Data

Testing	0 ... 32 kV DC
Shock discharge	0 ... 8, 16, 32 kV 1000 J
Pre-conditioning of faults	0 ... 32 kV / 160 mA
Sheath fault location	0 ... 5 kV / 160 mA
Power supply	230 V 50 / 60 Hz 2 kVA

Reflection measurement

Measurement modes	direct, comparative, differential, arc reflection method, impulse current, voltage uncoupling methods
Measuring range	0 ... 20 km

Measurement means of the UniSat System:

	Standard	Optional
High Voltage Testing		
DC-Voltage	0 .. 32 kV	Insulation Measurement with BM 222
Sheath Testing	0 .. 5 kV	
Fault Prelocation		
Low Impedance Faults	Reflection Measurement - Direct - Comparative - Differential	
High Impedance and Intermittent Faults	* ARM (passive) * Current Pulse Method * Voltage Uncoupling Method * Fault Conversion	
Sheath Fault		Bridge Method with MVG-5
Fault Pinpointing		
Low Impedance Fault		Buxom Field Method mit FLG 50
High Impedance Faults	Acoustic Field Method 0 .. 8/16/32 kV	
Sheath Faults		Step Voltage Method ESG 80-2

Scope of supply

- High voltage module SPG 32
- Reflectometer Kabellux® 31-E alternatively T3050
- Shock wave receiver Digiphone (inductiv/acoustic)
- Control panel with security devices and integrated high voltage switch HSS 32
- Cable drum module with:
 - high voltage cable (50 kV) 25m
 - line cord 25m
 - grounding cable 35m
- Emergency off – switch NAG
- Discharge rod 35 kV EST 35

Optional

- Cable drum for reflection measurements in three phases
- Device cubicles

DIN ISO 9001

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Product Range: Instruments and Test Vans for Fault Location in Power and Telecommunication Networks and for Leak Detection in Water and Sewage Networks • Cable and Pipe Locators • Seminars
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Technical data subject to change without notice.

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