

## shirla

# BAUR sheath test and fault location device

Version for very long land and submarine cables



# Mobile cable sheath testing and fault location

- Fault pre-location and pin-pointing in a single device
- Data export via USB interface
- Mains and battery operated
- Simple operation and intuitive user interface

The shirla sheath test and fault location device is used for cable and cable sheath testing, and for the pre-location and pin-pointing of cable sheath faults and cable faults due to earth contact.

The fault pre-location is based on the measuring bridge principle according to Murray and Glaser. This measuring bridge technique provides high constant accuracy even on cables with a large cross section, and is also suitable for locating faults near terminations. It allows for pre-locating faults between the core and the cable screen as well as faults between cable screen and ground (sheath faults). Zero balancing and evaluation take place automatically. The fault distance is shown in meters. Various cable sections can be entered, thus increasing the accuracy of the measurement.

For fault pin-pointing, shirla generates a pulsed voltage, thereby permitting the use of the step voltage method. Using the "Step voltage" set of the protrac<sup>®</sup> pin-pointing system, cable sheath faults and other faults due to earth contact can be located quickly and accurately.

#### Functions

- Cable and cable sheath testing with DC voltage up to 10 kV
- Fault pre-location by means of highresolution resistance measuring bridge
- Step voltage method for cable sheath fault pin-pointing

#### Features

## Pre-location of cable sheath faults and faults due to earth contact

- Measuring bridge with automatic zero balancing
- Automatic evaluation
- High accuracy by accounting for different cable sections in terms of length, conductor cross-section and material

#### Cable sheath fault pin-pointing

- Pulsed voltage up to 10 kV
- 4 pulse patterns selectable
- Adjustable switch-on delay and operating time

#### **General functions**

- Modified discharge unit for measurements on long land and submarine cables
- Continuously adjustable voltage
- Adjustable current and voltage limitation
- Automatic measurement sequences and reporting
- Automatic report export to USB stick
- Connection for external emergency off unit in accordance with EN 50191

<sup>\*</sup> Option



#### **Technical data**

Cable and cable sheath testing	
DC voltage	0 – 10 kV
Output current	10 mA @ DC 5 kV 5 mA @ DC 10 kV
Current indicator	
Accuracy	±10 μA
Resolution	1 μΑ
Insulation resistance measurement	0.01 MOhm to 1 GOhm
Voltage and current limitation	adjustable
Measuring bridge (pre-location of cable sheath faults and faults due to earth contact)	
Measurement method	4-wire measuring bridge according to Murray or Glaser
Output voltage	DC 100 V – 10 kV
Max. output current	50 mA
Accuracy	approx. 0.5% relating to overall cable length
Number of definable cable sections	50
Voltage and current limitation	adjustable
Step voltage method (cable sheath fault pin-pointing)	
Pulsed DC voltage	100 V – 10 kV
	4 selectable pulse patterns

4 selectable pulse patterns 700 mA

General	
Display	LCD with background lighting, screen resolution 320 x 240 pixels, Automatic brightness setting
Reporting	<ul> <li>Shown on display</li> </ul>
	<ul> <li>Automatic export via USB interface (USB 2.0)</li> </ul>
Data export format	Text file, bilingual: English, German
Power supply	
Mains voltage	AC 100 – 240 V, 50/60 Hz
Rechargeable battery	DC 12 V, 3.4 Ah
Max. power consumption	200 VA
Ambient temperature (operational)	-20 to +50°C
Storage temperature	-40 to +60°C
Relative humidity	Non-condensing
Weight and dimensions (W x H x D)	
shirla	Approx. 17 kg; approx. 440 x 490 x 220 mm
Transport case for accessories	Approx. 5 kg; approx. 450 x 355 x 125 mm
Degree of protection	IP54 (in closed state)
Safety and EMC	CE-compliant in accordance with Low Voltage Directive (2014/35/EU), EMC Directive (2014/30/EU), EN 60068-2-ff Environmental testing
Integrated battery	
Battery type	Lead-acid battery 12 V, 3.4 Ah
Battery life	Approx. 45 min (in HV mode)
Charging time	Approx. 4 h

