Syscompact 4000

BAUR cable fault location system

The figure is illustrative.

Compact and multifunctional

- Precise and dependable cable fault location
- High-performance surge voltage generator
- Precise fault location methods for every type of fault

The compact cable fault location system, Syscompact 4000, is used for the pre-location and pin-pointing of faults on low- and medium-voltage cables.

Thanks to the novel operational concept and the integrated location methods, cable fault location with Syscompact 4000 is faster and easier. The high-performance industrial PC and improved measurement parameters allow for a precise cable fault location in all cable types.

The system can be equipped with different surge voltage generators SSG 1100, SSG 1500* or SSG 2100*. The surge voltage generators have an automatic surge mode, thereby also allowing the Syscompact 4000 to be used for acoustic pin-pointing.

Thanks to its compact design, the Syscompact 4000 is easy to transport and is also suitable for installation in any small van with a payload of 300 to 500 kg.

Functions

- Insulation resistance measurement up to 1,000 V*
- TDR: Time Domain Reflectometry
- Envelope curve display for intermittent faults – even small changes in impedance are made visible and saved.
- SIM/MIM: secondary/multiple impulse method with surge voltage or in DC mode 20 reflection measurements per HV pulse
- ICM: impulse current method with surge voltage or in DC mode
- Surge mode for acoustic pin-pointing
- DC voltage testing
- Cable sheath testing

Features

- Intuitive user interface in multiple languages adapted to the work flow
- Integrated proven cable fault pre-location methods
- Automatic detection of cable end and fault position
- Dynamic input signal gain
- Automatic saving of all measurement data
- Storage for more than 100,000 measurements
- Interface to GIS databases*
- Modular system, easily expandable for cable testing and diagnostics

*** optional**

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Technical data

IRG 4000 time domain reflectometer	
The technical data of the time domain reflectometry and insulation resistance measurement are provided in the data sheet for the IRG 4000 time domain reflectometer and BAUR Software 4 for cable fault location.	
Surge voltage generator	
Surge voltage ranges	0 – 8 kV, 0 – 16 kV, 0 – 32 kV
Option SZ 1000/SZ 1600	0 – 4 kV
Surge energy SSG 1100	1,100 J with option SZ 1000: 880 J with option SZ 1600: 1,480 J
Option SSG 1500	1,540 J with option SZ 1000: 980 J with option SZ 1600: 1,580 J
Option SSG 2100	2,050 J with option SZ 1000: 1,110 J with option SZ 1600: 1,710 J
Surge sequence	10 or 20 pulses/min, single surge
Option SSG 1500	20 or 30 pulses/min, single surge
DC voltage	0 – 32 kV
Max. output current (in DC mode)	560 mA (0 – 8 kV)
Option SSG 1500/SSG 2100	850 mA (0 – 8 kV)

System	
Power supply	220 – 230 V, 50/60 Hz
Options	▪ 110 – 120 V, 50/60 Hz (with external auto transformer) ▪ 240 V, 50/60 Hz (with conversion kit for mains supply)
Ambient temperature (operational)	0°C to +50°C
extended temperature range*	-20°C to +60°C
Storage temperature	-40 to +60°C
Dimensions (W x H x D)	Approx. 935 x 1,145 mm x 775 mm (incl. KTG M3 cable drum rack)
Weight	From 195 kg (depending upon equipment)
Degree of protection	IP22
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

* Limitation of performance data possible

Standard delivery

Syscompact 4000 cable fault location system:

- IRG 4000 time domain reflectometer incl. pre-installed BAUR Software 4 (cable fault location)
- Uninterruptible power supply (UPS)
- PC keyboard
- Measuring cable (3 m)
- SA 32 SIM/MIM coupling unit
- SSG 1100 surge voltage generator
- SK 1D inductive coupler for ICM
- 19" rack, height 27 RU (1,200.15 mm), depth 700 mm
- KTG M3 cable drum rack with HV connection cable, mains supply cord and earth cable (incl. earth terminal), each 25 m
- Contact monitoring of the earth terminal
- Jumper plug for external emergency off unit
- CS 2 HV coaxial connection sockets, 40 kV
- GR 40 earth rod
- User manual

Accessories and options

- Surge voltage generator SSG 1500 instead of SSG 1100
- Surge voltage generator SSG 2100 instead of SSG 1100
- SZ 1000 surge capacitor extension
- SZ 1600 surge capacitor extension
- protrac® pin-pointing system / "Acoustics" set
- GDR 40-250 discharge and earth rod
- KTG M3 cable drum rack with HV connection cable, mains supply cord and earth cable, each 50 m
- Trolley for Syscompact 4000
- Steel frame with wheels and guide rods
- Steel pallet for Syscompact 4000
- TDR connection cable, 3-phase, 25 m, on hand cable drum
- TDR connection cable, 3-phase, 50 m, on hand cable drum

Options for power supply

- Conversion kit for 240 V mains supply for SSG 1100
- Conversion kit for 240 V mains supply for SSG 1500/SSG 2100
- External auto transformer, 110/230 V; 1.5 kVA
- External auto transformer 110/230 V; 3.0 kVA

Optional software functions

- Insulation resistance measurement
- Mapping (available countries on request)
- GIS interface