

Syscompact 400 portable BAUR cable fault location system



The figure is illustrative.

Portable system for pre-location and pin-pointing

- Fast and reliable
- Maximum safety during application
- High-performance surge voltage generator
- Proven fault pre-location methods

The portable cable fault location system, Syscompact 400 portable, is used for the pre-location and pin-pointing of faults on power cables. It is ideal for mobile use, without the need for permanent installation in a vehicle.

The system can be equipped with a range of surge voltage generators, which feature an automatic surge mode. The new IRG 400 time domain reflectometer can be controlled via a tablet or laptop. With the simple menu navigation and integrated location methods, cable fault location with the Syscompact 400 is fast and precise.

The IRG 400 can be operated remotely, thanks to the wireless connection of the control unit via Wi-Fi. This makes for easy and convenient performance and evaluation of the TDR measurement.

NEW:

Can be controlled via tablet with the intuitive BAUR BUI-F app

Functions

- Pre-location
 - TDR: Time Domain Reflectometry
 - Step TDR
 - SIM/MIM: Secondary/multiple impulse method with surge voltage or in DC mode
 - ICM: Impulse current method
 - Decay method (option)
- Pin-pointing*
 - Acoustic pin-pointing
 - Step voltage method for pin-pointing cable sheath faults
- DC voltage testing up to 32 kV

Features

- Surge energy up to 1,100 J (optionally up to 2,050 J)
- Long service life of the electrodes thanks to optimised physical properties
- High reliability of the spark gap
- Easy maintenance by trained personnel on site
- High system availability due to reduced downtimes
- Intuitive user interface in multiple languages
- Control of measurement via
 - Tablet with BAUR BUI-F app or
 - Laptop with BAUR Software 4
- Length-dependent gain for better display of remote events with the BAUR BUI-F app
- Greater convenience, as the TDR measurement can be controlled via Wi-Fi
- Integrated CAT IV/600 V separation filter for TDR measurements on live cables
- No special vehicle required for transportation

*with the BAUR protrac® pin-pointing system

Technical data

IRG 400 time domain reflectometer	
Measurement methods	<ul style="list-style-type: none"> ▪ TDR Time Domain Reflectometry 1- and 3-phase measurement ▪ Step TDR 1- and 3-phase measurement ▪ SIM/MIM secondary/multiple impulse method ▪ ICM impulse current method
	Option ▪ Decay method
Pulse voltage	60 V
Pulse width	30 ns – 10 µs
Voltage-proof up to	400 V, 50/60 Hz
Measurement category	CAT IV/600 V (up to CAT IV/600 V in combination with the optional TDR connection cable)
Output impedance	30 ohm – 2 kOhm
Input signal gain	Dynamic range 101 dB (-63 to +38 dB)
Display range	10 m – 1000 km
Accuracy	0.1% (relating to the measurement result)
Data rate	400 MHz
Resolution	0.1 m (at v/2 = 80 m/µs)
Velocity of propagation (v/2)	20 – 150 m/µs, adjustable
Control system	<ul style="list-style-type: none"> ▪ via tablet with BAUR BUI-F app ▪ via laptop with BAUR Software 4
Surge voltage generator	
Surge voltage ranges	0 – 8 kV, 0 – 16 kV, 0 – 32 kV
Surge energy	1,100 J
	Option SSG 1500 1,540 J
	Option SSG 2100 2,050 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 (burn)	DC 560 mA (0 – 8 kV)
	Option SSG 1500/SSG 2100 DC 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)	-10°C to +50°C
Storage temperature	-20°C to +60°C
Dimensions (W x H x D)	
	with carrying handles (basic version) Approx. 745 x 815 x 750 mm
	with heavy duty wheels Approx. 775 x 1 185 x 935 mm
Weight	From 140 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



Control of the IRG 400 via tablet or laptop
(The figure is illustrative)

Standard delivery

- Syscompact 400 portable cable fault location system incl.
 - IRG 400 time domain reflectometer
 - SA 32 SIM/MIM coupling unit
 - SSG 1100 surge voltage generator
 - SK 1D inductive coupler for ICM
 - 19" rack for Syscompact 400, height 21 RU (933.45 mm), depth 700 mm, incl. heavy duty wheels and handle
 - 19" drawer for tablet or laptop
 - HV connection cable, 10 m
 - Earth cable, 10 m, with earth terminal
 - Mains supply cord, 10 m
- Tablet with BAUR BUI-F app
or
Laptop with BAUR Software 4
- IRG connection cable, 3-phase, 10 m
- GR 40 earth rod
- User manual

Optional software functions for BAUR Software 4

- Mapping (available countries on request)
- GIS interface

Accessories and options

- 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, for SSG 1100
- External auto transformer 110/230 V, 3.0 kVA, for SSG 1500 / SSG 2100
- External auto transformer 127/230 V, 3.0 kVA, for SSG 1500 / SSG 2100
- Surge voltage generator SSG 1500 instead of SSG 1100
- Surge voltage generator SSG 2100 instead of SSG 1100
- protrac® pin-pointing system, "Acoustics" set
- GDR 40-250 discharge and earth rod
- HV connection cable, 25 m, with HV coaxial connection socket
- HV connection cable, 50 m, with HV coaxial connection socket
- TDR connection cable, CAT IV/600 V, 3-phase, 25 m, on hand cable drum
- TDR connection cable, CAT IV/600 V, 3-phase, 50 m, on hand cable drum



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