Syscompact 400

BAUR cable fault location system

The figure is illustrative

Compact and multifunctional

- Easy to operate
- High-performance surge voltage generator
- Proven fault pre-location methods
- Maximum safety during application

The compact cable fault location system, Syscompact 400, is used for the pre-location and pin-pointing of faults on power cables. It is easy to transport and is also suitable for installation in any small van with a payload of 300 – 500 kg.

Thanks to Wi-Fi connectivity, the time domain reflectometer can be operated remotely. With the integrated CAT IV/600 V separation filter, TDR measurements can also be performed safely on live cables. User-friendly menu navigation in multiple languages and proven fault location methods ensure fast and precise measurement results.

When combined with the separately available BAUR protrac® pin-pointing system, it is possible to pin-point cable faults acoustically and to pin-point cable sheath faults with the step voltage method.

NEW:
BAUR Fault Location App

Functions

- TDR: Time Domain Reflectometry (1- and 3-phase)
- Step TDR for the pre-location of cable faults and joints in the vicinity (1- and 3-phase) – only with the BAUR BUI-F app
- SIM/MIM: Secondary/multiple impulse method
- DC-SIM/MIM: Secondary/multiple impulse method used in DC mode
- ICM: Impulse current method
- DC-ICM: Impulse current method used in DC mode
- Decay method (option)
- Cable and cable sheath testing up to 32 kV

Features

- Measurements carried out via:
  - Laptop with BAUR Software 4 or
  - Tablet with BAUR BUI-F app
- In the case of control via laptop: Transfer of relevant cable route data to the BAUR Fault Location App to assist with cable fault pin-pointing
- Surge energy up to 2,050 J
- Long service life of the electrodes thanks to optimised physical properties
- High reliability of the spark gap
- Easy maintenance and repair by trained personnel on site
- Length-dependent gain for better display of remote events
- Compact system, suitable for installation in a small van

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Technical data

IRG 400 time domain reflectometer	
Pulse voltage	60 V
Pulse width	30 ns – 10 µs
Number of pulses (SIM/MIM)	1 – 20 pulses, adjustable
Voltage-proof up to	400 V, 50/60 Hz
Measurement category	CAT IV/600 V (with enabled separation filter)
Input signal gain	Dynamic range 101 dB (-63 to +38 dB)
	+40 dB (length-dependent gain)
Measurement range	10 m – 250 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	▪ Via laptop with BAUR Software 4 ▪ Via tablet with BAUR BUI-F app

Surge voltage generator		
Surge voltage ranges		0 – 8 kV, 0 – 16 kV, 0 – 32 kV
Surge energy	SSG 1100	1,100 J
	SSG 1500 option	1,540 J
	SSG 2100 option	2,050 J
Surge sequence		10 or 20 pulses/min, single surge
	SSG 1500 option	20 or 30 pulses/min, single surge
DC voltage		0 – 32 kV
Max. output current (burn)		DC 560 mA (0 – 8 kV)
SSG 1500 / SSG 2100 option		DC 850 mA (0 – 8 kV)

Surge capacitor extension		SZ 1000	SZ 1600
Surge voltage range		0 – 4 kV	0 – 4 kV
Surge energy	SSG 1100	880 J	1,480 J
	SSG 1500 option	980 J	1,580 J
	SSG 2100 option	1,110 J	1,710 J

System	
Power supply	220 – 230 V, 50/60 Hz
Other power supplies optional	See "Standard delivery, accessories and options"
Ambient temperature (operational)	-10°C to +50°C
Storage temperature	-20°C to +60°C
Dimensions incl. KTG M3 cable drum rack (W x H x D)	Approx. 935 x 970 x 775 mm
Weight	From 195 kg (depending on configuration)
Degree of protection	IP21
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

Standard delivery, accessories and options

Syscompact 400	
IRG 400 time domain reflectometer incl. laptop with pre-installed BAUR Software 4 (cable fault location)	✓
Options for BAUR Software 4	See "Optional software functions for BAUR Software 4"
IRG 400 time domain reflectometer incl. tablet with BAUR BUI-F app installed	Option
Surge voltage generator:	
SSG 1100	✓
SSG 1500	Option
SSG 2100	Option
Surge capacitor extension:	
SZ 1000	Option
SZ 1600	Option
Power supply:	
220 – 230 V, 50/60 Hz	✓
110/230 V, 50/60 Hz, 1.5 kVA, via external auto transformer	Option
110/230 V, 50/60 Hz, 3.0 kVA, via external auto transformer	Option
Isolation transformer with protective earthing connection, 2.5 kVA	Option
SA 32 SIM/MIM coupling unit	✓
SK 1D inductive coupler for ICM	✓
19" rack, height 21 RU (933.45 mm), depth 700 mm	✓
Jumper plug for external emergency off unit	✓
KTG M3 cable drum rack incl. ▪ CS 2 HV connection socket, 40 kV ▪ HV connection cable, mains supply cord, and earth cable, each of 25 m cable length ▪ Contact monitoring of the earth terminal	✓
KTG M3 cable drum rack incl. ▪ CS 2 HV connection socket, 40 kV ▪ HV connection cable, mains supply cord, and earth cable, each of 50 m cable length ▪ Contact monitoring of the earth terminal	Option
TDR connection cable, CAT IV/600 V, 3-phase, 25 m or 50 m cable length, on hand cable drum	Option
GR 40 earth rod	✓
GDR 40-250 discharge and earth rod	Option
External emergency off unit with signal lamps, 25 m or 50 m cable length	Option
Trolley for Syscompact 400	Option
Steel frame with wheels and guide rods for Syscompact 400	Option
Steel pallet for Syscompact 400	Option
User manual	✓

✓ Included in standard delivery
Option Optionally available

Optional software functions for BAUR Software 4

- Mapping* (available countries on request)
- GIS interface*
- BAUR Fault Location App*
- BAUR Software 4 for office PC (office installation)

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* These optional software functions are only available when the IRG 400 time domain reflectometer is controlled via a laptop and the BAUR Software 4.

Example: Map view in the BAUR Fault Location App
(only available when control is via laptop and BAUR Software 4)

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