IRG 400 portable

BAUR time domain reflectometer

The figure is illustrative.

Reliable and fast cable fault location

↗ Precise pre-location with high-performance technology

↗ Light, compact and portable

↗ Maximum safety for operators

↗ Can be installed in cable fault location systems

The IRG 400 portable time domain reflectometer is used for fault pre-location on 1- and 3-phase cables. The integrated separation filter allows TDR measurements to be performed on live cables up to measurement category CAT IV/600 V.

Thanks to the intuitive operational concept, cable faults can be located more rapidly and easily with the IRG 400 portable. Using the IRG 400 portable and the BAUR BUI-F application, TDR fingerprints of cables can be created that allow comparisons against existing reference measurements. Changes in the cable can therefore be detected immediately. The recorded measurement results can be exported via the tablet's USB interface and imported into the BAUR Software 4 for further processing, e.g. reporting.

The measuring device and tablet are connected via Wi-Fi. Therefore the measurement can be controlled and traced safely and conveniently using the tablet outside of the danger zone.

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)
- In combination with BAUR surge voltage generators
  - SIM/MIM: secondary/multiple impulse method
    Up to 20 reflection measurements per HV pulse
  - DC-SIM/MIM: secondary/multiple impulse method used in DC mode
  - ICM: impulse current method
  - DC-ICM: impulse current method used in DC mode
- In combination with BAUR HV generators with DC voltage
  - Decay method (option)

Features

- Intuitive user interface in multiple languages
- Measurement controlled via a tablet using the BAUR BUI-F application
- Length-dependent gain for better display of remote events
- Greater convenience, as measurements can be controlled via Wi-Fi
- Integrated separation filter (can be enabled/disabled) for TDR measurements on live cables with measurement category CAT IV/600 V
- Everything needed for the measurement in one handy case – time domain reflectometer, tablet, accessories
- Suitable for use in the field and weather-proof (splash water and dust protection)
- Operation via rechargeable battery or mains voltage

Technical data

IRG 400 portable	
Pulse voltage	60 V
Pulse width	30 ns – 10 µs
Number of SIM/MIM pulses	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)
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 of measurements	BAUR BUI-F application, installed on a tablet
Power supply	
Mains voltage (via charger)	100 – 240 V, 50/60 Hz
Rechargeable battery	Lithium-ion battery, 14.4 V, 2,900 mAh, 39.2 Wh
Battery life	Approx. 6 h
Battery charging time	Approx. 4 h
Dimensions	Approx. 371 x 259 x 152 mm

Weight	▪ IRG 400 portable (acc. to standard delivery): approx. 7.7 kg ▪ Tablet: approx. 1.1 kg
Degree of protection	IP54
Ambient temperature (operational)	-20°C to +55°C
Storage temperature	-20°C to +65°C
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
BAUR Software 4 for office PC (office installation)	Used to evaluate test and measurement logs

SCORPION industrial tablet	
Display size	10.1"
Operating system	Windows 10
Degree of protection	▪ IP65 ▪ MIL-STD-810G
Rechargeable battery	Lithium-ion battery, 7.6 V, 5,000 mAh, 38 Wh
Charging the battery	via the IRG 400 portable (USB-C)

Standard delivery

IRG 400 portable time domain reflectometer:

- IRG 400 portable time domain reflectometer
- SCORPION industrial tablet, incl.:
  - Windows operating system
  - BAUR BUI-F application
- 3-phase TDR connection cable, 2 m, with connection clips and fuses
- BNC cable, 2 m, incl.:
  - BNC adapter, 2 x connection Ø 4 mm
  - Connection cables, red and black, 0.75 m each, with fuses
- Earth cable, 3 m, with earth terminal
- Charger incl. country-specific mains supply cord
- User manual

Information on individual functions and the required accessories can be obtained from your BAUR representative.

Accessories and options

BAUR Software 4 for office PC (office installation)