

## 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.

### 康高特-BAUR IRG 400时域反射仪 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 $v/2 = 80 \text{ m}/\mu\text{s}$ )    |
| 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                      |

## 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.

|                                                     |                                                                                                                                                    |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                                              | <ul style="list-style-type: none"> <li>▪ IRG 400 portable (acc. to standard delivery): approx. 7.7 kg</li> <li>▪ Tablet: approx. 1.1 kg</li> </ul> |
| 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       | <ul style="list-style-type: none"> <li>▪ IP65</li> <li>▪ MIL-STD-810G</li> </ul> |
| Rechargeable battery       | Lithium-ion battery, 7.6 V, 5,000 mAh, 38 Wh                                     |
| Charging the battery       | via the IRG 400 portable (USB-C)                                                 |

## Accessories and options

BAUR Software 4 for office PC (office installation)