

# BAUR Time Domain Reflectometer IRG 3000



Picture of device with the 19" housing option

## Reliable cable fault location with minimum effort

- › Maximum precision with high resolution and high sampling rate
- › One device for all measurement methods
- › Menu navigation in 21 languages
- › Easy to operate

The computer-supported Time Domain Reflectometer IRG 3000 in combination with the BAUR system software is used for cable fault prelocation in single and three phase cable systems.

With the comprehensive BAUR system software, IRG 3000 can be built into a complete system for efficient cable testing and diagnostics.

### Features

- Pre-programmed measuring sequences, fully automated measurement and display of the fault distance
- Storage for more than 100,000 measurements
- Three-phase measurement and display
- Level of initial impulse: 20 – 160 V
- View range: 10 m – 1000 km
- Time Domain Reflectometry (TDR)
- Secondary/Multiple Impulse Method (SIM/MIM)
- SIM/MIM with DC voltage (SIM/MIM DC)
- Impulse Current Method (ICM)
- Decay Method
- Impulse Current Differential Method
- Decay Differential Method
- Resistance Measurement (option)
- Can be combined with BAUR cable testing and diagnosis systems: All measurements are controlled via the BAUR system software.  
VLF cable test: with PHG 70/80;  
Dissipation factor and partial discharge measurement: with PHG 70/80 TD PD or viola 19" (for installation in the cable test van)

Available measurement methods	Required equipment
Time Domain Reflectometry (TDR)	—
Secondary/Multiple Impulse Method (SIM/MIM)	System coupling SA 32 and surge voltage generator SSG
SIM/MIM with DC voltage (SIM/MIM DC)	System coupling SA 32 and surge voltage generator SSG
Decay Method	Surge voltage coupling CC 1 and VLF test generator PHG or HV Tester PGK
Impulse Current Method (ICM)	Surge current coupling SK 1D
Impulse Current Differential Method	Coupling SK 3D and surge voltage generator SSG
Decay Differential Method	Coupling SK 3D with VLF test generator PHG or HV Tester PGK
Resistance Measurement (option)	—

### Technical data

Pulse width	20 ns – 1.3 ms
Output voltage (transmit pulse)	20 – 160 V
Output impedance	12 – 2,000 $\Omega$
Sampling rate	200 MHz (5 ns)
Electric strength	400 VAC, 50/60 Hz
Power supply	100 – 260 V, 50/60 Hz
Power consumption	Max. 280 VA
View range	10 m – 1000 km
Resolution	0.1 m (at $v/2 = 80$ m/ $\mu$ s)
Propagation velocity $v/2$	20 – 150 m/ $\mu$ s
Input signal amplification	-10 to +60 dB
Accuracy	0.1%
Display	TFT colour display 15.1", 6 U
Weight: IRG 3000 / Display	approx. 7 kg / approx. 5 kg
Dimensions (W x H x D)	
as plug-in unit	19", 483 x 174 x 365 mm 1 U (front), 4 U (rear)
with housing	19", 483 x 318 x 365 mm 8 U (front)
Storage space	> 100,000 (hard disk limit)
Ambient temperature	0 to +50 °C
Storage temperature	-25 to +60 °C
Safety and EMC	Conforms to CE in compliance with Low Voltage Directive 2006/95/EG (EN 61010-1) and EMC Directive (EN 55011, EN 61000-3-2, EN 61000-4-2, EN 61000-4-4, EN 61000-4-5, EN 61000-4-11)

Software available in

English, Arabic, Chinese (CN), Chinese (TW), Danish, German, Finnish, French, Greek, Italian, Korean, Malay, Dutch, Norwegian, Polish, Portuguese, Rumanian, Russian, Serbian, Swedish, Spanish, Czech



IRG 3000, integrated in the cable test van

### Standard delivery includes

- BAUR Time Domain Reflectometer IRG 3000
- Software MS Windows on CD-ROM
- BAUR System Software for IRG 3000 3.x on CD-ROM
- Wireless PC keyboard and mouse
- Monitor TFT 15.1"
- 3-phase HV connection cable, 3 m
- Mains supply cord, 2.5 m
- User manual

### Options

- Megohmmeter integrated in IRG 3000 – software controlled
- 19" housing, 8 U, 400 mm deep
- 3-phase LV connection cable MS 25 for IRG 3000, 25 m length
- 3-phase LV connection cable MS 50 for IRG 3000, 50 m length
- 3-phase measuring cable with connection terminals for test van installation