

# **Table of contents**

Voltage detectors Lamp Tester Continuity testers Battery testers Motor and Phase Rotation Tester	08 09 10 10
Sustainable Energy Test Adapters for Electric Vehicle Charging Stations Solar Power Meter	13 13
Underground Utilities Locators and Wire Tracers Advanced Wire Tracer Kits Underground Cable/Pipe Locator Systems Fuse finder and LAN Cable Tester	16 18 19
Digital Multimeters	20
Clamp Meters	27
Test and Measurement equipment Ground Resistance Testers Multifunction Installation Testers Portable Appliance Testers Equipment Testers and Accessories	40 42 46 48
Software Packages	52
Environmental Testing Infrared Thermometers Temperature and Humidity Meters Carbon Monoxide Meter Temperature Sensors and Accessories Light Meters Ultrasonic Leak Detector Sound Meters Anemometers Digital tachometers	55 58 61 62 63 63 64 65 66
Measurement Accessories	67
Appendix Article: Measurement Categories Complete Beha-Amprobe Product Index	73 74

# Beha-Amprobe, Evolution of the brand

# Nearly 70 years ago, in 1948,

the very first inductive clamp meter named "Amprobe" was invented in the United States by Pyramid Instrument Company. Soon after, the Amprobe name became so synonymous in the US with clamp meters that in 1960 the company name was formally changed to Amprobe Instrument Corporation.

# Fourteen years later in Glottertal,

Germany, Christian Beha invented the V1X, a continuity tester designed to replace his previous model after it failed on the job. An immediate success, the V1X ushered in a period of rapid growth for the company. By the mid-90s, Beha was a respected name in the electrical industry.

Recognizing the strength and quality of each brand, Danaher Corporation bought Beha and Amprobe in 2003 and 2006 respectively. Today, our combined legacies span over 100 years of bringing safety, speed and ease to the HVAC and electric professional with high-quality test and measurement tools.

From multimeters to voltage detectors, we are always improving on our designs to provide you with the very best quality in tools and support.

# Innovative Testing Tools for Electricians

Our products are sold by a global network of trusted partners with a professional support team at your service, making Beha-Amprobe the natural choice. Whether you need test and measurement tools for industrial, commercial or residential applications, Beha-Amprobe offers innovative test equipment to fit your needs.

**Every tool undergoes rigorous testing** in our lab and by certified third-parties to ensure the rugged durability, quality and safety you've come to expect from us.

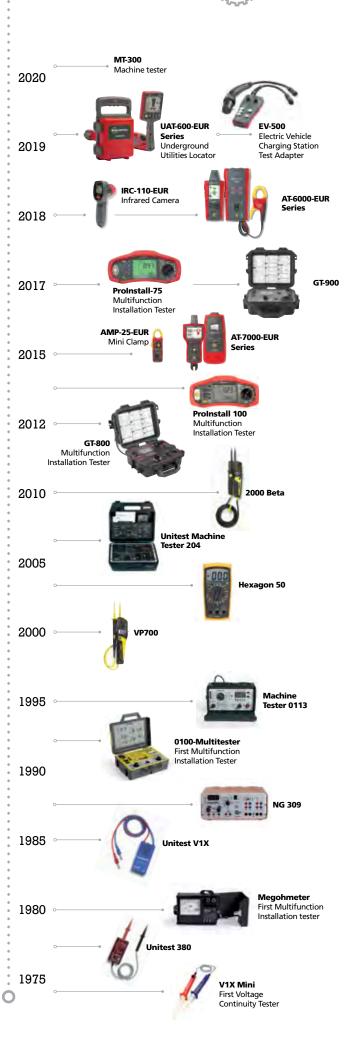
















# ADPTR-PE-EUR, ADPTR-SCT-EUR Socket-Check Adapters

Safe, reliable testing with optimal contact to outlet.







# Electrical testing equipment

Our range of electric testing equipment covers standard equipment for any electrician, including the latest voltage detectors, non-contact voltage testers in a compact pen design, continuity phase rotation indicators for safely establishing the phase sequence and motor rotation direction.





Voltage Detectors









						-	
	2100-ALPHA	2100-BETA	2100-GAMMA	NCV-1020-EUR VOLTfix	NCV-1030-EUR VOLTfix	NCV-1040-EUR MAGNO-VOLTfix	
Voltage Test							
Voltage range / LED indication	50, 120, 230 V A	DC: green LEDs C/DC: yellow LEDs C/DC: red LEDs	±12, 24 V AC/DC: green LEDs 50, 120, 230 V AC/DC: yellow LEDs 400, >690 V AC/DC: red LEDs	50-1000 V AC	12-50 V AC, 50-1000 V AC	12-50 V AC, 50-1000 V AC	
Voltage range / LCD	-	6690 V AC/DC	61000 VAC,	_	_	-	
LED tolerances		acc. to EN 6124	61200 VDC 3-3:2014	_	_	_	
Acoustic indication		≥50 V AC, ≥12		•	•	•	
Current I		AC/DC at AC/DC	≤3.5 mAAC at 1000 VAC / ≤4.5 mADC at 1200 VDC"	-	-	-	
Internal load		ately 2.4 W V AC/DC	Approximately 3.5 W at 1000 VAC / Approximately 5.4 W at 1200	-	-	-	
Test current switchable load		A AC/DC V AC/DC	VDC"  ≤350 mAAC at 1000 VAC / ≤420 mADC at 1200 VDC"	-	-	-	
Switchable load		ately 170 W V AC/DC	Approximately 350 W at 1000 VAC / Approximately 500 W at 1200 VDC"	-	-	-	
Measurement category	CAT IV / 600V,	CAT IV / 600V,	CAT IV / 600V,	CAT IV 1000V	CAT IV 1000V	CAT IV 1000V	
5 7	CAT III / 690V	CAT III / 690V	CAT III / 1000V				
Voltage AC/DC testing Voltage and range				AC only	AC only	AC only	
detection	Automatic	Automatic	Automatic	-	manual	manual	
Non contact cable break detector / electric field (NCV/EF)	-	_	•	•	•	•	
Voltage detection sensitivity		_	•	LED and buzzer indications at approximately 5 mm (0.20 in) distance from a wire carrying 230 Vac			
Frequency Range							
Voltage test Single Pole Phase Test		DC, 16 2/3 Hz		50-400 Hz –	50-400 Hz	50-400 Hz –	
Phase Rotation	40 Hz70 Hz 4070 Hz			-	-	-	
Trip Test of RCD (earth le	akage circuit breaker	·)					
Test current switchable load (load buttons activated)		>30 mAAC at	230 VAC	-			
Single Pole Phase Test			400 4000 1/4 5		' 		
Voltage range	100690 VAC	against earth	1001000 VAC against earth	_	_	_	
ndication		Acoustic + re	ed LED	-	-	_	
Continuity Test (Rx) / Dic	ode Test	0 5001	0				
Range Test current		0500 k <5 µA	Ω	<del>-</del> -	_	_	
ndication		Acoustic + yell	ow LED	_	_	_	
Phase Rotation Indication	n	, , ,					
Voltage range		90 V AC o phase	1701000 V AC phase to phase	-	_	-	
ndication	,	Acoustic + green LED	for Right/Left	-	_	-	
Resistance Measurement	t(Ω)						
Range on LCD	-	-	01999 Ω	-	_	_	
Low resistance ndication	-	-	Acoustic indication <1050 Ω	-	-	-	
General Specifications  Magnetic solenoid  detection	-	-	-	-	-	•	
Voltage detection sensetivity	-	-	•		ndications at approxima ce from a wire carrying 2		
Operating temperature		-15°C to +	55°C		-		
Operation /		30 s / 240	) s	Continuous			
Recovery time							
Protection degree Safety regulations		IP 64 IEC 61243-3:2014, EN DIN VDE 0682-4		IP65 IEC 61010-1 3rd Ed., UL 61010-1 3rd Ed., UL 61010-2-030, CAN/CSA-C22.2 No.61010-1-12,			
				CAN/CSA-C22.2 No. 61010-2-030-12 to CAT IV 1000 V			
Power Supply Dimensions		Battery 2x 1.5V (AA			tery 2 x 1.5V (AAA/ IEC	·	
(L x W x H) Weight		280 x 78x 35 mm (11. Approximately 32		156.2 x 23.5 x 27.5 mm (6.14 x 0.92 x 1.08 in)  Approx. 58 q (0.12 lb)   Approx. 60 q (0.13 lb)   Approx. 62 q (0.136 lb)			
vveignt		Approximately 32	0 g (0.71 lb)	Approx. 30 g (0.12 lb)	Approx. 00 g (0.13 lb)	Approx. 02 g (0.136 lt	



# 2100-ALPHA

# Voltage tester with continuity measurement and phase sequence indication

# **Functions**

- Voltage test by colored LED Display: 12 ... 690V AC / DC
   Automatic AC/DC voltage
- Automatic AC/DC voltage detection with polarity indication
- Optical and acoustic continuity and voltage test
- Two pole phase rotation indication with indicator for right and left rotation, no 3rd hand required
- **Single pole test** to check phase polarity

# **Product information**

- Patented Phase Rotation Indication; no "3rd hand required".
   Two Indications for "R" and "L"phase rotation
- Switchable load and 10 mA or 30 mA RCD trip test with two push buttons

- Safety rated CAT IV 600 V / CAT III 690 V
- Robust, double insulated cable with wear indication shows when the test leads are excessively worn or damaged and need replacement
- Audible indication when detected voltages above 50 V AC and 120 V DC
- **IP 64**, water and dust-resistant
- Integrated probe-tip protection for reducing the danger of injuries
- Fully functional voltage indicator even without batteries or if batteries are empty

# **Product highlights**

- Fixed test probe protector cover to reduce the risk of injury
- Battery indication
- Colored LED display to make different voltage levels more visible

- No unintentional triggering of RCD/FI circuit breakers
- Fast single-handed testing of power sockets with 19 mm contact clearance, without the probe coming away from the unit
- Test probe protector cover with accessory probe and cap storage
- Extremely robust construction with doubly insulated wires
- Torch light / measurement area illumination for working in poorly lit areaslated wires
- Built according to voltage tester standard EN 61243-3:2014 and is GS approved



# Voltage tester with continuity measurement and phase sequence indication

# As the 2100-ALPHA, also with:

- **Digital LCD** 6...690 V AC/DC
- Data Hold

• Backlight



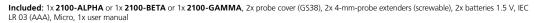


# 2100-GAMMA

# Voltage tester with continuity measurement, phase sequence indication, resistance and NCV

# As the 2100-BETA, also with:

- Voltage test up to 1000 V, alternating current and 1200 V direct current
- **Digital LCD** 6...1000 V AC/ 1200 V DC
- Non-contact voltage (NCV/EF) detection
- **Measures** resistance up to 1999 Ohm
- Low resistance continuity measurement <10...50 Ohm with acoustic indication



Accessories: 2100-ACCS (spare part): 4mm probe extenders and probe tip covers



# NCV-1020-EUR VOLTfix

# Non-Contact Voltage (NCV) tester

## **Functions**

- Non-contact voltage detection from 50V to 1000V AC
- Audible and visual voltage indication
- Detection of AC voltage in cables, circuit breakers, wall sockets, junction boxes, fuses, extension cords
- Identification of cable breaks in wires, cords and lightning systems connected in series
- Voltage test through wire insulation

# **Product information**

- **Compact,** handy design that fits in any pocket
- Audible (buzzer) and visual (LED) voltage indication
- Water and dust resistant IP65 rated

# **Device highlight**

On/off switch



Included: 1x NCV-1020-EUR VOLTfix, 2x battery 1.5 V, IEC LR03, 1x user manual

# NCV-1030-EUR VOLTfix

# Non-Contact Voltage (NCV) tester with built-in worklight

# As the NCV-1020-EUR VOLTfix, also with:

- Non-contact voltage detection
- Default: 50-1000 V. High Sensitivity: 12-50 V
- NCV LOW range (>12 V AC)
- Auto power off
- Built-in work light
- Low battery indication

Included: 1x NCV-1030-EUR VOLTfix, 2x battery 1.5 V, IEC LR03, 1x user manual

# NCV-1040-EUR MAGNO-VOLTfix

# Non-contact voltage probe with magnetic field detection

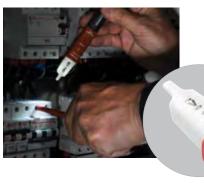
# As the NCV-1030-EUR VOLTfix, also with:

Magnetic solenoid testing

Included: 1x NCV-1040-EUR MAGNO-VOLTfix, 2x battery 1.5 V, IEC LR03, 1x user manual









NCV-1030-EUR

VOLTfix Article no. 4918085

# LT-10-EUR

# Pocket-sized Lamp Tester - tests bulbs, pins, and voltage

# **Functions**

- Testing fluorescent lamps of various types
- Non-contact voltage detection
  Direct testing of lamp contacts
- za con tozaneg en tamp conta

# **Product information**

- Simple single-hand/1-button operation
- Extremely compact pocket-size design
- Compatible with the most

# common fluorescent lamps:

- T2, T4, T5, T8, T9, T10, T12 - energy-saving fluorescent lamps
- Including sodium vapour lamp antenna for testing additional lamps:
- Sodium vapour low-pressure lamps
- Sodium vapour high-pressure lamps
- Fluorescent tubes
- Mercury vapour lamps
- Halogen metal vapour lamps

# **Product highlights**

 Integrated, highly-sensitive
 122 cm antenna (can be removed and inserted) enables testing of both lamp and voltage without a conductor

# Technical specifications

lechnical specifications	
Display	1 LED
Test voltage (with new battery)	approx. 3 kV / 280 kHz
Non-Contact Field strength:	Approx. 100 μV/m at 260 - 300 kHz
Voltage test:	AC 90 V to AC 600 V, 50/60
Overall Safety cert.:	EN61010/IEC61010
Measurement category	CAT II/300 V, CAT I/600 V
Pollution Degree	2
Protection category	IP 40
Power supply	1x battery 9V, 6LR61

**Included:** 1x LT-10-EUR, 1x antenna - 122cm, 1x adapter plate for fluorescent tubes, 1x antenna for sodium vapour lamps, 1x carrying case, 1x user manual







Article no. 4386345



# 9023 TESTFIX

# Continuity and circuit tester with flashlight function

- Acoustic continuity tester (summer)
- Optical continuity display (lamp)

# **Product information**

- Low-resistance continuity tester
- For testing light bulbs, fuses, etc.
- Test wiring and grid networks

# **Product highlights**

**Product highlights** 

• Voltage-proof up to 600 V

• Flashlight function with continuous

# **Technical specifications**

Continuity test	$010$ $\Omega$ (optical), $0100$ $\Omega$ (acoustic)
Test current	Approx. 200 mA (optical), Approx. 40 mA (acoustic)
Test voltage	< 4.5 V
Power supply	3 x battery 1.5 V, IEC LR6
Dimensions	130 x 75 x 35 mm
Weight	approx. 180 g

Included: 1x TESTFIX without batteries, 1x spare lamp, 1x carrying case, 2x uninsulated crocodile clips,



9072-D Ohmtest Article no. 3454373



1150 Carrying Case Article no. 2145755

# 9072-D Ohmtest

# Continuity tester

# **Functions**

- Continuity tester with buzzer
- Optical continuity display
- External voltage display >50 V

# **Product information**

• Range of applications: Resistance, semi-conductor, and polarity testing, light-bulbs, fuse, etc.

# Technical enecifications

ieciliicai specilications	
Continuity test	0500 kΩ
Test current	approx. 5 μA
Test voltage	< 9 V
External voltage indicator	50600 V
Protection category	IP 40
Power supply	1x battery 9 V, IEC 6LR61
Dimensions	110 x 58 x 24 mm
Weight	approx. 150 g

Included: 1x Ohmtest, 1x battery 9 V, IEC 6LR61, 1x crocodile clip, 2x probes, 1x user manual

# BAT-250-EUR

# Battery tester

# **Functions**

- Test standard and rechargeable batteries
- Direct display of state of charge
- Analog display with colored areas

# **Product information**

- Testing of Mignon (AA), Micro (AAA), Baby (C), and Mono (D) battery types
- Testing of 1.5 V button cells
- Testing of 9 V block batteries

# **Product highlights**

- Ergonomic design, sliding contact for one-handed operation
- V-shaped battery holder on the side
- High-quality connections for 9 V block batteries
- No batteries required to operate



# **Technical specifications**

iceinneai speeineacions	
Display	Analog display with colored areas
	Replace (REPLACE), Low (LOW), Good (GOOD)
Test current (typical)	1.5 V: 375 mA, 9 V: 40 mA (at limit of measurement range)
Nominal load (typical)	1.5 V: 4 Ω, 9 V: 215 Ω
Battery types	9 V block battery, Micro (AAA), Mignon (AA),
	Baby (C), Mono (D) and 1.5 V button cells
Dimensions	approx. 110 x 74 x 29 mm
Weight	approx. 50 g

Included: 1x BAT-250-EUR, 1x user manual

# PRM-5-EUR

# **Phase Rotation Tester**

# **Functions**

- Phase sequence display with LEDs
- Display of a missing or incorrectly connected outer conductor

# **Product information**

- Fast detection of phase sequence in three-phase supply
- Voltage range from 100 to 700 V, Frequency range 16 to 400 Hz

# Product highlights

- No battery needed
- Robust housing with rubber protective cover
- Securely connected test leads Measurement category CAT IV, 600 V



PRM-5-EUR Article no. 4375961

# Technical specifications

iceinicai specificacions	
Display	LED for anticlockwise, clock-wise, faulty connection
Voltage range	100 700 V
Frequency range	16 400 Hz
Test current	≤3,5 mA
Safety cert	DIN VDE 0411/EN 61010-1/DIN VDE 0413-7, EN 61557-7
Measurement category	CAT IV / 600 V
Power supply	from test object
Dimensions	137 x 65 x 33 mm
Weight	approx. 253 g

Included: 1x PRM-5-EUR, 3x probes, 1x crocodile clip, 1x carrying case, 1x user manual

# PRM-6-EUR

# Motor and Phase Rotation Tester

# **Functions**

- Phase sequence display with LCD
   Display of a missing or incorrectly
- Display of a missing or incorrectly connected outer conductor
- Non-contact motor rotation indicator when the motor is running
- De-energised identification of motor connections (U, V, W) via a manual drive

# **Product information**

- Fast detection of phase sequence in three-phase supply
- Voltage range from 40 to 700 V, Frequency range 16 to 400 Hz

# **Product highlights**

- Robust housing with rubber protective cover
- Detachable test leads

- Measurement category CAT IV, 600 V
- Back light
- Testing rotary field direction possible without batteries, or with empty batteries

# **Technical specifications**

Display	LCD
Phase sequence indication	40700 V / 1660 Hz, 50700 V / 60400 Hz
Non-Contact Motor rotation indicator	16400 Hz
Detection of motor connections	>0.65 V / 2100 Hz
Test current	≤3,5 mA
Safety cert	DIN VDE 0411/EN 61010-1/DIN VDE 0413-7, EN 61557-7
Measurement category	CAT IV / 600 V
Power supply	2x batteries 1.5 V, IEC LR 03 (AAA), Micro
Dimensions	137 x 65 x 33 mm
Weight	approx. 170 g

**Included:** 1x PRM-6-EUR, 2x batteries 1.5 V, IEC LR 03, 3x test leads, 3x probes, 3x crocodile clips, 1x carrying case, 1x user manual





PRM-6-EUR
Article no. 4633222

# **Recommended Accessories**

See accessory section for more details.



Crocodile clips for conductor rails

Model 391511 (red)

Article no. 2146861

Model 391512 (black)
Article no. 2146877



1324 Unidreh accessory set allows a perfect and easy connection to CEE 16 A and CEE 32 A sockets,

safety cert.: CAT II, 1000 V Article no. 2146183



1150 Carrying Case Article no. 2145755



TL-PRM-6 test lead set for PRM-6-EUR

Article no. 4692870



# Sustainable energy

A transition to sustainable energy is necessary to meet the growing energy demand and to address the threat of climate change. Sustainable energy sources like solar power or switching to driving electric vehicles requires equipment testing to make sure relatively new power sources are safe to use and deliver according their standards. As an innovating company we are extending our range of electric testing equipment to fit the world's new energy landscape.

·AMPROBE®

# **EV-500 Series**

# Test Adapter Kits for Electric Vehicle Charging Stations

Get access to the socket-outlets of a charging station to perform safety and functional tests, while simulate presence of an electrical vehicle

The EV-500 Series Test Adapter Kits are designed to test function and safety of charging stations mode 3 for AC charging. The Adapter Kit allows you to conduct tests in combination with appropriate test instruments like an installation tester (for example the Beha-Amprobe ProInstall Series).

- PE Pre-Test: With this safety feature the PE conductor can be tested for possible presence of dangerous voltage against earth.
- Proximity Pilot (PP) state "Cable Simulation": With PP State rotary switch the adapter can simulate various current capabilities of charging cables
- Control Pilot (CP) state "Vehicle Simulation": With CP State rotary switch selector various charging states can be simulated.
- Simulation of CP error "E"

Technical specifications Outputs (for test purpose only) Measuring terminal L1, L2, L3, N and PE

Mains socket

Weight

Safety

CP Signal output terminals Input voltage

Dimensions (W  $\times$  H  $\times$  L)

• Simulation of PE error (Earth fault)

# **Product information**

- Suitable to vehicle charging stations with charging mode 3
- EV-connectors for type 2 and type 1 Measuring terminals L1, L2, L3, N and PE to connect test device like installation tester to perform safety
- and functional tests. • Terminals for CP signal output to check communication between adapter (=simulated electrical vehicle) and charging station.

# **Product highlights**

Separate phase indication by three LED lamps for easy check if voltage is present.

- Mains socket offering the possibility to connect an external load to check if the electric power meter works and counts in the right manner.
- IP 54 rating Dust and splashing water



Article no. 5008580

# Max. 250/430 V, CAT II 300 V, max. 10 A Max. 250 V, CAT II 300 V, allowed current max. 10 $\mbox{A}$ PWM communication protocol, approx. max. $\pm 12 \text{ V}$ Up to 250 V (single phase system) up to 430 V (three phase system), 50/60 Hz, max 10 A 110 × 45 × 220 mm (length without connection cable and connector) Approx. 1 kg (Adapter EVA-500-x + EV-connector EVC-20) IEC/EN 61010-1:2010, IEC/EN 61010-2-030:2010

# EV-500 Ordering Information:

Select correct model for your country

Version	Country	Article no.
EV-500-D	(with Schuko socket (CEE 7/3)	5008532
	for EU countries except for UK, Switzerland and CEE	
EV-500-UK	(with UK socket) for UK/Ireland only	5022810
EV-500-CH	(with Swiss socket type 13) for Switzerland only	5022805
EV-500-F	(with French socket type E)	5022822
	for Central and Eastern Europe (using a socket type E)	

Included in KIT: 1x EVA-500-D/UK/CH/F Test Adapter, 1x EVC-20 Test Cable for EV charging station type 2 with socket outlet or fixed cable with vehicle connector, 1x User Manual, 1x Soft Carrying Bag

# SOLAR-100

# Solar Power Meter

# **Functions**

- Measuring solar radiation
- Establishing light transparency of windows and panes (g-factor)

# **Product information**

- Display switchable between W/m² or BTU / (ft² x h)
- Manual range selection
- Integrated measurement memory (data hold)
- MAX/MIN function
- Manual zero adjustment

# Technical specifications

recinical specifications	
Display	LCD, 3 ½ digit, 1999 digits
Measurement ranges	0200, 2000 W/m², 0634 BTU / (ft² x h)
Resolution	0.1, 1 W/m <sup>2</sup> ; 0.1, 1 BTU
Accuracy	±10W/m <sup>2</sup> (±3 BTU) or ±5 %
Power supply	1x battery 9 V, IEC 6F22
Dimensions	130 x 63 x 38 mm (unit) 80 x 55 x 29 mm (sensor)
Weight	approx. 230 g

Included: 1x SOLAR-100, 1x battery 9 V, IEC 6F22, 1x carrying case, 1x user manual



SOLAR-100 Article no. 3474979



# Underground Utilities Locators and Wire Tracers

Cable locators are useful for tracing and finding wires and cables. This means that sockets and fuses can be assigned to circuits, hidden sockets and junction boxes in walls, floors, and ceilings can be traced, and interruptions in cables and short circuits can be located.

Targeted locating of cables in walls, as well as interruptions and short circuits in cables

- Locating of fuses/machines and assignment to circuits
- Locating of accidentally concealed sockets and distribution boxes
- Locating of interruptions and short circuits in unshielded underfloor heating
- · Tracing wires in ceilings and walls
- · Tracing cables in soil



Wire Tracers and Underground Utilities Locators
Known for speed, reliability, and accuracy, Amprobe wire tracers and Underground Locator kits set the standard for precision and usability, and help you get the job done quickly and accurately.

# Wire **Tracers**













		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		7	m <del>( )</del>	
	AT-6010	AT-6020	AT-6030	AT-7020	AT-7030	SF100
Measurement Category	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT IV 300 V	CAT IV 300 V	CAT III 300 V
Traces energized and de-energized wires	•	•	•	•	•	•
Locates energized and de-energized breakers and fuses	•	•	•	•	•	•
Receiver "Breaker Identification" mode to instantly identify the correct breaker	-	•	•	•	•	-
Finds shorts and opens	•	•	•	•	•	-
Transmitter "Loop" mode for closed loop de-energized circuits	-	•	•	•	•	-
Non-contact voltage detection	-	•	•	•	•	•
Two frequency modes for optimal tracing in energized (6 kHz) and de-energized (33 kHz) circuits	•	•	•	•	•	-
Transmitter Operating Voltage	0 to 600 V AC/DC	0 to 600 V AC/DC	0 to 600 V AC/DC	9 to 300 V AC/DC	9 to 300 V AC/DC	100250 V AC
Receiver Display	B&W 2.5 in LCD	Color 2.5" LCD	Color 2.5" LCD	Color 3.5" LCD	Color 3.5" LCD	2 LEDs and 7-segment display for letters
Rechargable Batteries	-	-	•	-	•	-
<b>Signal clamp attachment</b> to induce signal	(optional accessory)	(optional accessory)	•	(optional accessory)	•	-

# **Underground Utilities Locators**







		-	
	AT-3500	UAT-610	UAT-620
Measurement Category	-	CAT IV 600 V	CAT IV 600 V
Locates energized/de-energized wires, cables, pipes	•	•	•
Passive tracing - 50/60 Hz	•	•	•
Passive tracing - Radio	•	•	•
Active Tracing	33 kHz	33 kHz (de-energized) 8kHz (energized system)	33 kHz (de-energized) 8kHz (energized system)
Active tracing - Induction mode (33kHz)	•	•	•
Depth measurement	Up to 4.9 m (16 ft)	100 m (30 ft)	100 m (30 ft)
Signal Clamp accessory	(optional accessory)	(optional accessory)	•
A-Frame accessory	(optional accessory)	(optional accessory)	(optional accessory)
Null and peak tracing options	-	•	•
Display	LCD	LCD	LCD
Sonde capable	•	•	•
Auto display backlight sensing (Receiver)	_	•	•

# AT-7030 Advanced Wire Tracer Kit

# AT-7000-EUR series

# Multi-function Advanced Wire Tracer Kits

## Functions

- Targeted locating of cables in walls, as well as interruptions and short circuits in cables
- Locating fuses/machines and assignment to circuits
- Locating accidentally concealed sockets and distribution boxes
- Locating interruptions and short circuits in unshielded underfloor heating
- Tracing metallic water and heating pipes

# **Product information**

 Set consisting of transmitter and receiver in a stable, shock-proof case

- Display of sender signal
- Clear, easy-to-follow instruction manual with application examples

# **Product highlights**

- All application areas (live or de-energised) are covered without the need for additional devices
- Receiver with high-resolution 8.9 cm (3.5") TFT-LCD color screen
- Display of position and direction of wire on LC screen
- Receiver with two antennas "Smart Sensor™" and "Tip Sensor"
- Transmitter with two switchable transmission frequencies (6 kHz and 33kHz)

• Connection for optional current clamp to feed in a signal without direct connection to the wire.

Included AT-7020: 1x AT-7000-RE Receiver, 1x Transmitter AT-7000-TE, 3 test leads, 2x crocodile clips, 2x probes, 10x batteries 1.5 V, IEC LR 06 (AA), Mignon, 1x carry case, 1x user manual

Included AT-7030: 1x AT-7000-RE Receiver, 1x Transmitter AT-7000-TE, 1x SC-7000-EUR Current clamp, 1x BR-7000-T power pack, 1x Hanging strap HS-1, 3 test leads, 2x crocodile clips, 2x probes, 10x batteries 1.5 V, IEC LR 06 (AA), Mignon, 1x carry case, 1x user manual





Article no.4594135

Power pack for transmitter

Article no.4467296



Battery charger
Article no.4544583



# New AT-8000-EUR Series Advanced Wire Tracer Coming Soon.



# AT-6000-EUR Series

# Multi-function Advanced Wire Tracer Kits

The AT-6000-EUR Series, available in two different kits (AT-6020-EUR and AT-6030-EUR), combines a receiver and powerful transmitter to locate energized and de-energized wires, breakers, and fuses.

The AT-6000-RE Receiver detects the signal in wires and cables using two methods: active tracing method (with the Transmitter) and passive tracing method (without the Transmitter). In hard-to-reach areas, the Receiver's Tip Sensor can be used to trace wires in corners, tight spaces and junction

boxes. The AT-6000-TE Transmitter works on Energized and Deenergized circuits up to 600 V AC/DC in Category I through Category III electrical environments and features high signal, low signal, and loop modes. The Breaker Identification feature eliminates confusion of multiple false positives, common with older technology tracing tools, by identifiying the one correct breaker or fuse with the highest recorded signal.

# **Functions**

- Quick Scan Wire Tracing: quick wire detection at a longer distance
- Precision Wire Tracing: precisely pinpoints wires or faults located behind walls, floors, or ceilings
- Breaker Identification: automatic sensitivity feature that allows for quick and easy breaker locating without the auesswork
- Non-Contact Voltage Detection: utilizes passive tracing without the transmitter to verify if a wire is Energized

# **Product information**

- Clear, easy-to-follow instruction manual with application examples
- CT-400-EUR signal clamp (included) in AT-6030-EUR kit, optional for AT-6020-EUR kit) to improve accuracy and performance when there is no access to bare conductors

# **Product highlights**

- Receiver with full color TFT display
- Transmitter with High Signal Mode, Loop Mode and Low Precision Mode
- Receiver with Tip sensor, also for wire tracing in tight spaces

• Transmitter with transmission mode indicator and volume adjustment





AT-6000-T Transmitter CT-400 Signal Clamp

Included AT-6020: 1x AT-6000-R Receiver, 1x AT-6000-T Transmitter, 1x TL-7000 Test Lead and Accessory Kit, 1x ADPTR-SCT-xxxx Socket-Check Adapter, 1x CC-6000 Hard Carrying Case, 1x User Manual,1x Rechargeable Batteries 12X, 1x Battery Chargers 3X

Included AT-6030: 1x AT-6000-R Receiver, 1x AT-6000-T Transmitter, 1x TL-7000 Test Lead and Accessory Kit, 1x ADPTR-SCT-xxx Socket-Check Adapter, 1x CC-6000 Hard Carrying Case, 1x User Manual, 1x Rechargeable Batteries 12X, 1x Battery Chargers 3X, 1x CT-400-EUR Signal Clamp



AT-6020-EUR Advanced Wire Tracer Kit Article no. 4868002



AT-6030-FUR Advanced Wire Tracer Kit Article no. 4868016

# **AT-6010-EUR**

# Advanced Wire Tracer

# **Functions**

- RCD-protected circuit wire tracing
- Find breaks, openings, and shorts
- Trace wires in metal conduit
- Trace non-metallic pipes and conduits
- Trace shielded wires
- Trace underground wires
- Trace low voltage wires and data cables
- Sort bundled wires
- Map circuits using test leads connection
- Trace breakers/fuses on system with light dimmers

# **Product information**

- CT-400-EUR signal clamp (optional accessory) to improve accuracy and performance when there is no access to bare conductors
- Clear, easy-to-follow instruction manual with application examples

# **Product highlights**

- Transmitter with High Signal Mode, Loop Mode and Low Precision Mode
- Receiver with Tip sensor, also for wire tracing in tight spaces
- Transmitter with transmission mode indicator and volume adjustment hutton

Included AT-6010: 1x AT-6010-RE Receiver, 1x AT-6010-TE Transmitter, 1x TL-6000-INTL Test Lead and Accessory Kit, 1x CC-6010-EUR Soft Carrying Case, 1x User Manual, 12x 1.5 V AA (IEC LR6) Battery



AT-6010-R Reciever AT-6010-T Transmitter



AT-6010-EUR Advanced Wire Tracer Kit

Article no. 5044669



# **UAT-600-EUR Series**

# **Underground Cable/Pipe Locator System**

# **Functions**

- Multiple tracing modes allow you to locate and trace energized and de-energized utilities in a variety of applications
- Identify any point of leakage around a cable
- Locate cable and wire ground faults, sheath faults or pipeline coating defects, where the utility is in direct contact with the ground
- Find the exact point where metal is touching the ground and power is leaking, ie, a shield is rusted or a rubber buffer is broken, creating noise on a cable

# **Product information**

- The intuitive Transmitter automatically chooses the correct locating function based on the connected accessory and includes selectable 8/33 kHz frequencies
- Rated CAT IV 600 V, ensuring safety when working with energized cables

- Semi-automatic gain control quickly detects tracing signal and allows precise adjustment of the receiver sensitivity
- Advanced technology and digital signal processing makes pinpointing process fast, accurate and clear:
- Compass guidance with numeric fault field strength indicates the direction of the fault
- Distance sensitive left and right arrows guides the user to precisely follow the path of the buried utility
- Automatic gain control quickly detects tracing signal and precisely adjusts the A-Frame sensitivity
- Adjustable volume control

# **Product highlights**

- The Receiver's high-contrast display allows for clear viewing in full sunlight and features an automatic backlight for shaded and dark areas
- Accurate depth measurement to 6 meters, detect and trace utilities buried

Included UAT-610-EUR:1x UAT-600-RE Receiver, 1x UAT-600-TE Transmitter, 1x CC-UAT-600-EUR Carrying Case, 1x TL-UAT-600 Test Leads Kit, 2x FP-UAT-600 Replacement Fuse, 1x User Manual, 1x Quick Reference Guide, 6x 1.5 V AA (IEC LR6) Batteries (Receiver) 8 8

- up to 30 meters deep
- Rugged, durable construction: water and dust resistant to IP54 and drop proof to 1 meter
- Ground fault locating with the optional A-Frame accessory
- Comes as a complete kit, ready for use
- Use the Signal Clamp to induce a signal without making electrical contact

# Accessories

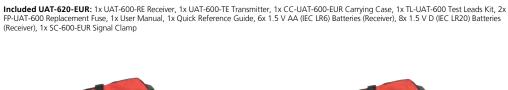
**AF-600-EUR A-Frame** ground fault locator to pinpoint ground faults where current is leaking to ground

**BR-600-R** Rechargeable battery for Receiver

**BR-600-T** Rechargeable battery for

**EPS-UAT-600** 2-port charger for Receiver and Transmitter batteries

**TL-600-25M** Extension test lead, 25 m (80')











# **A-Frame Ground Fault Locator**

Set up the UAT-600-TE Transmitter to apply a fault find signal to the utility under test, the AF-600-EUR A-Frame receives the signal and locates the place of the fault. The AF-600-EUR will pinpoint where a cable metal conductor (either a sheath or a metallic conductor of the wire) touches the ground and can also detect other conductors to ground faults such as pipeline coating defects.

# **Functions**

- Identify any point of leakage around a cable
- Locate cable and wire ground faults, sheath faults or pipeline coating defects, where the utility is in direct contact with the ground
- Find the exact point where metal is touching the ground and power is leaking, ie, a shield is rusted or a rubber buffer is broken, creating noise on a cable

# **Product information**

 Advanced technology and digital signal processing makes pinpointing process fast, accurate and clear:
 Compass guidance with numeric

- fault field strength indicates the direction of the fault
- Distance sensitive left and right arrows guides the user to precisely follow the path of the buried utility
- Automatic gain control quickly detects tracing signal and precisely adjusts the A-Frame sensitivity
- Adjustable volume controls

# **Product highlights**

- Clearly view the auto back light LCD display in bright sunlight and all other outdoor conditions
- The AF-600-EUR A-Frame comes complete with batteries and a carrying case



Included: 1x A-Frame Receiver, 6x 1.5 V AA (IEC LR6) Batteries, 1x Carrying Case, 1x User Manual

# AT-3500

# **Underground Cable/Pipe Locator System**

With the AT-3500 cable locator you can ensure that productivity remains high, whilst costs remain low. AT-3500 is a robust, cost-effective solution for locating live and de-energised wires, cables and pipes in soil.

The cable locator is, for example, suitable for car park and airport lighting, and shows the location of cables and pipes immediately on a digital, backlit multi-segment display, complete with acoustic indicators.

The AT-3500 cable locator functions at the frequency of 33 kHz, which is proven for the majority of tracing applications. In order to avoid wires on construction sites, the device also provides a highly-sensitive current mode and a radio mode. Depth measurements can be carried out by pressing the button.

- Locating and tracing cables and pipes in the ground
- · Simplified tracing function enables location of cable or pipe damage
- · Determining the location, depth, and alignment
- of metal cables Optical and acoustic display

# **Product information**

- · Set consists of transmitter, receiver, and measuring accessories
- · Various measurement functions allow for high levels of accuracy:

- Passive via network frequency
- Passive via radio signals
- Active via signal generator
- Transmitter with voltage-proof output
- Comprehensive range of accessories

# **Product highlights**

- Large display with simple menu navigation and back light
- Robust construction for use in inclement weather and harsh environments

Included: Receiver, transmitter, connection cables, ground stake, carrying case, user manual, batteries (installed)



# Accessories:







for AT-3500

Article no. 3435073

# SF100

# Fuse finder for live circuits

# **Functions**

- Fast and accurate locating of fuses and assignment to circuits

# **Product information**

- Set consisting of transmitter and receiver in a robust carry case
- · Transmitter signal is indicated optically and acoustically on the receiver
- Transmitter with built-in Schuko plug for simple contacting with the Schuko or UK socket
- Locating and tracing of cables beneath Simple switching between fuse and cable search function
  - · Continuous sensitivity adjustment of
  - Coded signal enables precise identification from the receiver

# **Technical specifications**

code from the transmitter
nitter)
nitter)

Included: 1x fuse finder transmitter, 1x fuse finder receiver, 1x battery 9 V, IEC 6LR61, 1x carry case, 1x user manual



SF100 Article no. 3454312

# LAN-1

# LAN Cable Tester

# **Functions**

- Testing wiring faults of LAN cables
- Detection of cable breaks, short circuits, reversed and split pairs
- · Check of shielding

# **Product information**

- Test pin configuration for: 10/100 base
- 10 base-2 cables

- RI45 cables
- AT&T 258A cables
- EIA / TIA 568A/568B cables
- Token ring cables
- Testing installed cable on wall plate or the patch panels by using an external coding plug
- Testing a cable loop or remote testing with a coding plug
- Acoustic error display

# **Product highlights**

Automatic and manual test procedure

only available in countries using

Schuko plug

• Recognition of split pairs

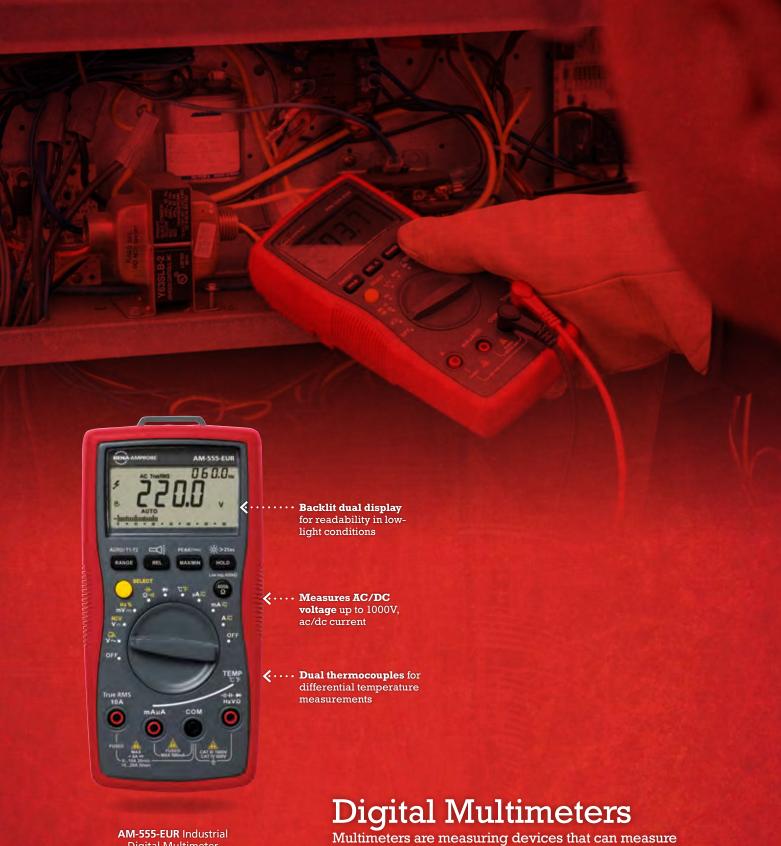


Article no. 3052401

# Technical specifications

2x 9 LED segments for cable occupation green output, red input
RJ45 and BNC
>300 m
battery 1x 9 V, IEC 6F22
130 x 56 x 38 mm
approx. 600 g

Included: 1x fuse finder transmitter, 1x fuse finder receiver, 1x battery 9 V, IEC 6LR61, 1x carry case, 1x user manual



Digital Multimeter

many variables. Our product portfolio ranges from compact multimeters for simple applications (e.g. troubleshooting) up to multimeters for more demanding situations such as in development or within industry, with a variety of functions and measurement options. This means that regardless of the application, we have the right multimeter offering excellent value for the money.



# Digital Multimeters













	AM-500-EUR	Hexagon 110	Hexagon 120	Hexagon 340	37xR-A	38xR-A	
Display Digits	31/2 digit, 1999 digits	3¾ digit, 4000 digits	3¾ digit, 4000 digits	¾ digit, 5000 digits	4 digit, 9999 digits	4 digit, 9999 digits	
True-RMS measurement	-	_	-	AC	AC	AC+DC	
Bar graph	-	-	-	•	•	•	
Ranges							
Voltage AC	1 mV 600 V	0.1 mV 1000 V	0.1 mV 1000 V	0.01 mV 1000 V	0.1 mV 750 V	0.1 mV 750 V	
Basic Accuracy*	(1.0% + 3 D)	(1.5% + 5 D)	(1.5% + 5 D)	(0.5% + 3 D)	(1.2% + 10 D)	(1.2% + 10 D)	
Frequency	45400 Hz	50500 Hz	50500 Hz	40 Hz20 kHz	45 Hz2 kHz	45 Hz2 kHz	
Voltage DC	1 mV 600 V	0.1 mV 1000 V	0.1 mV 1000 V	0.01 mV 1000 V	0.1 mV 1000 V	0.1 mV 1000 V	
Basic Accuracy*	(0.8% + 3 D)	(0.3% + 4 D)	(0.3% + 4 D)	(0.08% + 2 D)	(0.1% + 5 D)	(0.25% + 5 D)	
Current AC	0.1 μΑ10 Α	0.1 μA10 A (20A for 30 s)	0.1 μA10 A (20A for 30 s)	0.1 μA10 A (20A for 30 s)	0.01 μΑ 10 Α	0.01 μΑ 10 Α	
Basic Accuracy*	(1.5% + 3 D)	(1.5% + 4 D)	(1.5% + 4 D)	(0.6% + 3 D)	(1.5% + 10 D)	(1.5% + 20 D)	
Frequency	45400 Hz	50 Hz500 Hz	50500 Hz	40 Hz1 kHz	45 Hz1 kHz	45 Hz1 kHz	
Current DC	0.1 μΑ10 Α	0.1 μA10 A (20A for 30 s)	0.1 μA10 A (20A for 30 s)	0.1 μA10 A (20A for 30 s)	0.01 μΑ 10 Α	0.01 μΑ 10 Α	
Basic Accuracy*	(1.2% + 3 D)	(1.2% + 3 D)	(1.2% + 3 D)	(0.2% + 4 D)	(0.5% + 10 D)	(0.5% + 10 D)	
Resistance	1Ω20 ΜΩ	0.1Ω40 ΜΩ	0.1Ω40 ΜΩ	0.01Ω50 ΜΩ	0.1Ω40 ΜΩ	0.1Ω40 ΜΩ	
Diode and continuity test	•	•	•	•	•	•	
Capacitance	-	0.01 nF3000 μF	0.01 nF 3000 μF	0.01 nF 9999 μA	0.01 nF 400.0 μF	0.01 nF 400.0 μ	
Frequency	_	5 Hz1 MHz	5 Hz1 MHz	5 Hz125 kHz	3.00Hz10MHz	3.00Hz10MHz	
Temperature	-	-	-20+300 °C	-50+1000 °C	-	-20+1300°C	
Range selection							
Automatic	•	-	-	•	•	•	
Manual	•	-	-	•	•	•	
Data Hold	•	_	-	•	•	•	
Min/max value memory	-	Max Hold	Max Hold	•	•	•	
Peak Hold	-	_	-	•	•	•	
Relative measurement	-	•	•	•	•	•	
Data logger/interface	-	-	-	- / RS-232	- / RS-232	- / RS-232	
Auto Power Off	-	•	•	•	•	•	
Battery	1x 9 V	2x 1.5 V	2x 1.5 V	1x 9 V	1x 9 V	1x 9 V	
Measurement Category	CAT III/600 V	CAT III/600V, CAT II/1000 V	CAT III/600 V, CAT II/1000 V	CAT IV/600 V, CAT III/1000 V	CAT III/600V, CAT II/1000V	CAT III/600V, CAT II/1000V	
Features	Battery test, 1.5 V/9 V	Acoustic warning signal for incorrect jack connection	Acoustic warning signal for incorrect Jack connection incl. temperature probe	RS-232 interface Illuminated display Calibration and adjustment without opening the device Software optionally available	Inductance measurement Acoustic warning signal in case of incorrect jack connection logic test Magnetic hanger (MagneGripTM)	Current loop measurement (420mA) Softwa optionally availab Magnetic hangei (MagneGripTM)	

 $<sup>\</sup>star$  = Basic accuracy figures are with regard to the best level of accuracy of the relevant measurement function

# Digital Multimeters















	HD 110C	HD 160C	AM-510-EUR	AM-520-EUR	AM-535-EUR	AM-540-EUR	AM-555-EUR
Display Digits	4 digit, 9999 digits	4 digit, 9999 digits	3¾ digit, 3999 digits	3¾ digit, 3999 digits	3¾ digit, 3999 digits	3¾ digit, 5999 digits	3¾ digit, 5999 digits
True-RMS measurement	-	AC	-	-	•	-	•
Bar graph	-	_	•	•	-	•	•
Ranges							
Voltage AC	0.1 mV 1000 V	0.1 mV 1000 V	0.1 mV 600 V	0.1 mV 600 V	0.1 mV 600 V	0.1 mV 1000 V	0.1 mV 1000 V
Basic Accuracy*	(1.2% + 10 D)	(1.2% + 10 D)	(1.0% + 3 D)	(1.0% + 3 D)	(1.0% + 3 D)	(1.0% + 3 D)	(1.0% + 3 D)
Frequency	452 kHz	452 kHz	45400 Hz	45400 Hz	45400 Hz	45 Hz1 kHz	45 Hz1 kHz
Voltage DC	0.1 mV 1500 V	0.1 mV 1000 V	0.1 mV 600 V	0.1 mV 600 V	0.1 mV 600 V	0.1 mV 1000 V	0.1 mV 1000 V
Basic Accuracy*	(0.1% + 5 D)	(0.1% + 5 D)	(0.8% + 1 D)	(0.8% + 1 D)	(0.8% + 1 D)	(0.5% + 2 D)	(0.5% + 2 D)
Current AC	0.01 μΑ 2 Α	0.01 μΑ 2 Α	0.1 μA 10 A	0.1 μΑ 10 Α	0.1 μΑ20Α**	0.1 μΑ 10 Α	0.1 μΑ20Α**
Basic Accuracy*	(0.8% + 4 D)	(0.8% + 4 D)	(1.2% + 2 D)	(1.2% + 2 D)	(1.2% + 2 D)	(1.2% + 2 D)	(1.2% + 2 D)
Frequency	451 kHz	451 kHz	45400 Hz	45400 Hz	45400 Hz	45 Hz1 kHz	45 Hz1 kHz
Current DC	0.01 μΑ 2 Α	0.01 μΑ 2 Α	0.1 μΑ 10 Α	0.1 μΑ 10 Α	0.1 μΑ20Α**	0.1 μΑ 10 Α	0.1 μΑ20Α**
Basic Accuracy*	(1.5% + 10 D)	(1.5% + 10 D)	(1.0% + 2 D)	(1.0% + 2 D)	(1.0% + 2 D)	(1.0% + 2 D)	(1.0% + 2 D)
Resistance	0.1 Ω40 ΜΩ	0.1 Ω40 ΜΩ	0.1 Ω40 ΜΩ	0.1 Ω40 ΜΩ	0.1 Ω40 ΜΩ	0.1 Ω60 ΜΩ	0.1 Ω60 ΜΩ
Diode and continuity test	•	•	•	•	•	•	•
Capacitance	-	0.01 nF400.0 μF	10 pF 100.0 μF	10 pF 4000 μA	10 pF 4000 μA	60.00 nF 60 mF	60.00 nF 60 mF
Frequency	-	0.01 Hz10 MHz	0.01 Hz10 MHz	0.01 Hz10 MHz	0.01 Hz10 MHz	0.01 Hz600.0 kHz	0.01 Hz600.0 kHz
Temperature	-	-20+1300°C	_	-40+1000 °C	-40+1000 °C	-40+1000 °C	-40+1000 °C
Range selection							
Automatic	•	•	•	•	•	•	•
Manual	•	•	•	•	•	•	•
Data Hold	•	•	•	•	•	•	•
Min/max value memory	-	•	-	•	•	•	•
Peak Hold	-	_	_	-	_	•	•
Relative measurement	•	•	-	-	-	-	-
Auto Power Off	•	•	•	•	•	•	•
Battery	1x 9 V	1x 9 V	1x 9 V	1x 9 V	1x 9 V	1x 9 V	1x 9 V
Measurement Category	CAT IV/1000 V	CAT IV/1000 V	CAT III/600 V	CAT III/600 V	CAT III/600 V	CAT IV/600V, CAT III/1000V	CAT IV/600V, CAT III/1000V
Features	Highest levels of safety CAT IV/1000 V, Auto Power Off	Highest levels of safety CAT IV/1000 V, Illuminated display Auto Power Off	Non-contact voltage detection, battery test, duty cycle function	Non-contact voltage detection, min/max value memory	Non-contact voltage recognition, True RMS measurement (TRMS)	Low pass filter Dual display Duty cycle function Peak value measurement (crest)	Low pass filter True-rms reading Dual display Duty cycle function Peak value measurement (crest)

<sup>\* =</sup> Basic accuracy figures are with regard to the best level of accuracy of the relevant measurement function

\*\*Max duration of measurement: 8 to 10A: measure up to 20 minutes, 10 minutes off minimum between measurements

> 10 to 20A: measure up to 30 seconds, 10 minutes off minimum between measurements

# LCR55A LCR Meter

# **Functions**

- Measuring resistance
- Capacitance measurement
- Inductance measurement
- Transistor and diode measurement

# **Product information**

- Manual range selection
- Integrated measurement memory (data hold and MAX hold)
- Shock-proof and impact-resistant thanks to standard protective holster
- Auto Power Off

# **Product highlights**

Large, clear display

# **Technical specifications**

Display	LCD, 3½ digit, 1999 digits
Ranges	
Resistance	0,01 Ω20 ΜΩ
Basic accuracy	±(0.5% rdg + 5 digits)
Continuity	R < 30 Ω
Inductance	1 μH200 H
Basic accuracy	±(3.0% rdg. + 20 digits)
Capacitance	1 pF2000 μF
Basic accuracy	±(1.0% rdg. + 3 digits)
Diode test	03 V
Accuracy	±(1.5% rdg. +1 digit)
Transistor test	(NPN, PNP) hfe, Iceo
Test current:	approx. 1 mA
Test voltage:	3.0 V DC typical
Power supply	1x battery 9 V, IEC 6LR61
Dimensions	183 x 79 x 38 mm
Weight	approx. 311 g (incl. battery)

Included: 1x LCR55A, 2x test leads, 2x crocodile clips, 1x battery 9 V, IEC 6LR61, 1x user manual



A-AMPROBE®

LCR55A Article no. 3026976



Soft Case Model CC-ACDC Article no. 2732643

# **AM-500-EUR**

# Compact digital multimeter

# **Functions**

- Voltage, current and resistance measurement
- Diode and acoustic continuity test

# **Device information**

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Shock-proof and impact-resistant thanks to standard protective holster
- µA measurement range

# Auto Power Off

# Product highlights

• 1.5 V and 9 V battery test

Included: 1x AM-500-EUR, 2x test leads, 2x battery 1.5 V, LR3, 1x user manual





AM-500-EUR Article no. 4102332





Safety set Model 370003

Article no. 2146666

Carrying case for devices with protective holster Model 1150

Article no. 2145755



AM-510-EUR Article no. 4102344



AM-520-EUR Article no. 4131281

AM-535-EUR Article no. 4701027

AM-540-EUR Article no. 4131308



AM-555-EUR Article no. 4701030



AM-500 Series Digital Multimeters

Best-in-class autoranging, digital multimeters with features for residential, commercial electrical, industrial and HVAC applications. Features include True-RMS, dual thermocouples for measuring temperature differential, low impedance to detect stray voltage, low pass filter to accurately measure variable frequency drives and a built-in flashlight.

# AM-510-EUR

# **Functions**

- Voltage, current and resistance measurement
- Capacitance and frequency measurement
- Diode and acoustic continuity test
- Battery test 1.5 V and 9 V

# **Product information**

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Illuminated display
- Relative measurement
- Auto Power Off

# **Product highlights**

- Non-contact voltage detection
- Built-in LED flashlight

# **AM-520-EUR**

# As AM-510-EUR, but with:

Temperature measurement

# **Product information**

- Additional bar graph display (61 segments)
- MIN/MAX hold
- Carry case included

# **AM-535-EUR**

# As AM-520-EUR, but with:

- Measures AC and DC current up to 20A (> 10 to 20A: measure up to 30 seconds, 10 minutes off minimum between measurements)
- True RMS measurement (TRMS) (only AM-535-EUR and AM-555-EUR)

# **AM-540-EUR**

# As AM-535-EUR, but with:

- Low pass filter
- Peak value measurement

# **Product highlights**

- Two temperature inputs
- Duty cycle function
- Measurement category CAT IV / 600V, CAT III / 1000V

# **AM-555-EUR**

# As AM-540-EUR, but with:

- Measures AC and DC current up to 20A (> 10 to 20A: measure up to 30 seconds, 10 minutes off minimum between measurements)
- True RMS measurement (TRMS) (only AM-535-EUR and AM-555-EUR)

Included with AM-500 series: 1x AM-510-EUR, AM-520-EUR, AM-535-EUR, AM-540-EUR, AM-555-EUR

2x test leads

1x temperature probe (only AM-520-EUR, AM-535-EUR)

2x temperature probes

(only AM-520-FUR, AM-535-FUR)

1x temperature adapter (only AM-535-EUR, AM-540-EUR, AM-555-EUR)

1x hanging strap (only AM-520-EUR, AM-540-EUR)

1x battery 9 V, IEC 6LR61

(only AM-520-EUR, AM-535-EUR, AM-540-EUR, AM-555-EUR)

1x user manual



# **Recommended Accessories**

See accessory section for more details.



Safety set Model 370003 Article no. 2146666



2x temperature probes with adapter. For AM-540-EUR and AM-555-EUR, Model TPK-62

Article no. 4160703



Carrying case Model VC221B Article no. 3068271

# Hexagon® 110

# Digital multimeter with extra large display

# **Functions**

- Voltage, current and resistance measurement
- Capacitance and frequency measurement
- · Diode and acoustic continuity test

As Hexagon 110, but with:

True RMS measurement (TRMS)

• Electrically isolated IR/RS-232 interface

(software with adapter as option) • 0.08 % best level of basic accuracy Additional analog bar graph with zoom function for evaluating trends

# **Product information**

Hexagon® 120

• Temperature measurement

Hexagon® 340A As Hexagon 120, but with:

• Automatic and manual range selection

- Integrated measurement memory (Data Hold) and Max Hold
- Relative measurement
- Auto Power Off
- Shock-proof and impact-resistant thanks to standard protective holster

# **Product highlights**

Digital multimeter with extra large

# • Acoustic warning signal and display message in case of incorrect jack connections (Hexagon 110 and 120

display

# Included with the Hexagon Series:

1x Hexagon 110, 120 or 340 1x protective holster 2x test leads 1x temperature probe (0° C...+400° C) (120, 340)

1x battery 9 V IEC 6LR61 (340) 2x battery 1.5 V IEC LR03 (110, 120) 1x user manual

# **Recommended Accessories**

See accessory section for more details.







For all Hexagon models Carrying case Model 1150 Article no. 2145755



For Hexagon 340: Software Model 1332 Article no. 3313506

# Hexagon® 110 Article no. 3454478 Hexagon® 120 Article no. 3454484

Hexagon® 340A

Article no. 3454491

# **PM51A**

Illuminated display

# Pocket multimeter with frequency and capacitance measurement

# **Functions**

- AC/DC voltage measurement
- Measuring resistance
- Diode and acoustic continuity test
- Capacitance and frequency measurement

# **Product information**

- Automatic range selection
- Integrated measurement memory (data hold)
- With securely connected test leads
- Auto Power Off

# **Product highlights**

- Compact digital multimeter in card format
- Large, clear display

Included: 1x PM51A, 1x battery 3 V, IEC CR2032, 1x user manual

# PM55A

# Pocket multimeter

with non-contact voltage detection (VolTect™) and automatic function selection (AutoTect™)

# **Functions**

- Voltage and resistance measurement
- Diode and acoustic continuity test
- Voltage measurement (AC/DC μA range)
- Capacitance and frequency measurement
- Non-contact voltage detection (VolTectTM)

# **Product information**

- Automatic range selection
- Includes rubber protective cover
- Auto Power Off

# **Product highlights**

- Compact digital multimeter in card format
- Large, clear display
- Automatic function selection of voltage and resistance (AutoTect $^{\text{TM}}$ )











**Technical specifications** 

	PM51A	PM55A
Display	LCD, 33/4 digit, 4000 digits	LCD, 33/4 digit, 6000 digits
Ranges		
AC voltage	0.001 V600 V	0.001 V600 V
Basic accuracy	±(2.0% rdg. + 5 digits)	±(1.5% rdg. + 5 digits)
Frequency range	50 Hz500 Hz	50 Hz60 Hz
DC voltage	0.1 mV600 V	0.001 V450 V
Basic accuracy	±(1.0% rdg. + 2 digits)	±(0.5% rdg. + 3 digits)
Input resistance	10 MΩ	-
Resistance	0.1 Ω40 ΜΩ	0.1 Ω6,000 MΩ
Basic accuracy	±(1.5 % rdg. + 6 digits)	±(1.2 % rdg. + 6 digits)
Continuity	R < 65 Ω	R < 175 Ω
Frequency	5 Hz1 MHz	10 Hz30.00 kHz
Basic accuracy	±(0.5% rdg. + 4 digits)	±(3.5 % rdg. + 6 digits)
Capacitance	0.1 nF3000 μF	0.1 nF100.0 μF
Basic accuracy	±(3.5 % rdg. + 6 digits)	±(3.5 % rdg. + 6 digits)
Pollution degree	2	2
Measurement category	CAT III/300V, CAT II/600V	CAT III/300V, CAT II/600V
Safety cert.	DIN VDE 0411, EN 61010, IEC 61010	DIN VDE 0411, EN 61010, IEC 61010
Power supply	1x battery 3 V, IEC CR2032	1x battery 3 V, IEC CR2032
Dimensions	113 x 53 x 10 mm	113 x 53 x 10 mm
Weight	approx. 78 g (incl. battery)	approx. 78 g (incl. battery)

Included: 1x PM55A, 1x battery 3 V, IEC CR2032, 1x case, 1x user manual



HD160C

Article no. 2670787



# HD110C

Article no. 2670779

# Accessories:



Professional test lead set with

silicone insulation Model 1306

Article no. 3313458

# DM73C

Article no. 2727739





# Accessories:

Carrying case Model VC30A Article no. 3068280

# HD160C

# Heavy-duty digital multimeter (TRMS)

- Voltage, current and resistance measurement
- · Diode and acoustic continuity test Capacitance and frequency
- measurement

# • Temperature measurement

# **Product information**

- Automatic and manual range selection • Integrated measurement memory
- MIN/MAX, relative and average value

measurement

- Illuminated display
- Shock-proof and impact-resistant thanks to standard protective holster
- Auto Power Off

# **Product highlights**

- True RMS measurement (TRMS)
  Highest safety rating of CAT IV/1000 V
- High voltages
- (1000 V AC and 1500 V DC)
- Protection category: IP67

# HD110C

# Robust multimeter for industrial applications

# **Functions**

- Voltage, current and resistance measurement
- Diode and acoustic continuity test

# **Product information**

- Manual range selection
- Integrated measurement memory (data hold)
- Shock-proof and impact-resistant thanks to standard protective holster
- Auto Power Off

# **Product highlights**

- Highest safety rating of CAT IV/1000 VHigh voltages (1000 V AC and 1500
- Protection category: IP67

Included: 1x HD160C, 2x test leads, 1x magnetic holder, 1x temperature probe, 1x battery 9 V, IEC 6LR61, 1x user manual



# DM73C

# Pen Type Digital Multimeter

- Voltage and resistance measurement
- Diode and acoustic continuity test

# (data hold)

- · Additional bar graph display
- Auto Power Off

# **Product information**

• Automatic range selection Integrated measurement memory

# **Product highlights**

• Compact multimeter in pen design

# **Technical specifications**

Display	LCD, 33/4 digit, 3400 digits
Ranges	
AC voltage	0.001 V600 V
Basic accuracy	±(1.5% rdg. + 8 digits)
Frequency range	50 Hz500 Hz
DC voltage	0.1 mV600 V
Basic accuracy	±(0.5% rdg. + 2 digits)
Input resistance	10 MΩ
Resistance	0.1 Ω34 ΜΩ
Basic accuracy	±(1.0 % rdg. + 4 digits)
Continuity	R < 35 Ω
Pollution degree	2
Measurement category	CAT III/300V, CAT II/600V
Safety cert.	DIN VDE 0411, EN 61010,
	IEC 61010
Power supply	2x battery 1.5 V, IEC LR44
Dimensions	198 x 29 x 35 mm
Weight	approx. 150 g (incl. battery)



# Facts to know about current clamps and clamp adapters

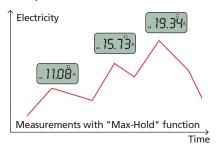
Current clamps and clamp adapters are suitable for measuring AC and DC currents on units and systems without interrupting the current flow.

# Safety

Only use current clamps or clamp adapters that are suitable for the stated measurement category for the desired measurement. If, for example, you wish to carry out a measurement in a distribution cabinet within a building, then a multimeter with at least a measurement category of III (CAT III) must be used. A detailed description of the measurement categories can be found on page 106.

# Peak value memory (Peak Hold)

Some clamp meters are equipped with a peak value memory (or measurement of inrush current). Due to the shorter response time it is possible to record current spikes in motors upon ignition, for example.



Readout Clamp with activated "MAX-HOLD" function

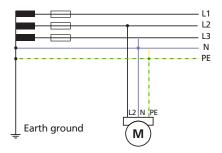
# **True-RMS measurement**

True-RMS measurement is necessary for the most precise recording of an alternating or mixed current.

The effective value plays an important part, especially with non-sinusoidal currents, e.g. phase angle control. The average value displayed by traditional current clamps is lower than the current that is actually available. Further information regarding the effective value can be found in "Things to know about multimeters".

# Measuring current without interruptions

Switching off systems or individual units in order to separate the circuit is not generally possible in practice and is largely avoided. All hazards, such as, for example, the appearance of hazardous contact voltages or a potential polarity reversal upon closing the circuit can be effectively prevented.



Measurement of current usage "Max-Hold" function of a single-phase motor

# **Power clamp meters**

Measurement of apparent, active, reactive power and power factor cos is quick and simple with the BEHA-AMPROBE range of power clamp meters. Power consumers with load currents up to 1000 A can be measured.

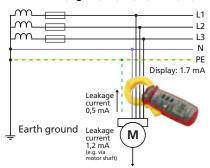
# **Clamp adapters**

Clamp adapters are suitable for applications which are solely aimed at recording measurements. Depending on the type of evaluating circuit, the primary flowing current can be converted into a considerably lower, safe secondary current or a voltage. Applications: e.g. switch cabinet construction, laboratory measurement circuits.

# Stray current measurement

(leakage current measurement)

High-resolution current clamps for leakage currents over 10 µA are indispensable, particularly for troubleshooting or for testing units and systems in accordance with the Ordinance on Industrial Safety and Health (DGUV Regulation 3). Currents that do not flow back via an electrical conductor (e.g. N) can be quickly, simply, and safely measured by covering all active conductors (e.g. L1, L2, L3, N, or L1, N).





Differential current measurement with leakage

# Simple to use

Our current clamps and clamp adapters are characterized by being simple and intuitive. The individual conductor is fully surrounded by the current clamp. The measured value appears on the digital display and can be read off immediately.



# TRMS Current Clamps













	AMP-25-EUR	AMP-210-EUR	AMP-220-EUR	AMP-310-EUR	AMP-320-EUR	AMP-330-EUR
Max. current	300 A	600 A	600 A	600 A	600 A	1000 A
Current type	AC/DC	AC	AC/DC	AC	AC/DC	AC/DC
True RMS measurement	•	•	•	•	•	•
Display	3 ¾ digit, 6000 digits					
Current AC	60.00 / 300.0 A	60.00 / 600.0 A	60.00 / 1000 A			
Basic Accuracy*	1.5% + 5 counts	2.2 % + 7 counts	2.2 % + 7 counts	2.2 % + 7 counts	2.2 % + 7 counts	1.8% + 5 counts
Frequency	50400 Hz	40400 Hz				
Current DC	60.00 / 300.0 A	_	60.00 / 600 A	_	60.00 / 600 A	60.00 / 1000 A
Basic Accuracy*	1.5% + 5 counts	_	2.0 % + 5 counts	-	2.0 % + 5 counts	1.8% + 5 counts
Voltage AC	_	0.1600.0 V	0.1600.0 V	0.1600.0 V	0.1600.0 V	0.11000 V
Basic accuracy*	-	1.0% + 5 counts	0.8% + 5 counts			
Frequency	_	5060 Hz	5060 Hz	5060 Hz	5060 Hz	20400 Hz
Voltage DC	-	-	0.1600.0 V	-	0.1600.0 V	0.11000 V
Basic Accuracy*	_	_	1.2% + 7 counts	_	1.2% + 7 counts	0.8% + 5 counts
Resistance	-	0.1 Ω60,00 kΩ				
Basic Accuracy*	_	1% + 5 counts				
Continuity test	-	R < 10 Ω				
Frequency verification	_	5.00 Hz999.9 Hz				
Power measurement	-	-	-	-	-	-
Data Hold	•	•	•	•	•	•
MIN/MAX/Peak Hold	•	•	•	•	•	•
Capacitance measurement	-	•	•	•	•	•
Jaw opening	25 mm	30 mm	35 mm	30 mm	35 mm	51 mm
Power supply	2x 1.5 V IEC LR44	2x 1.5 V IEC LR03	2x 1.5 V IEC LR6			
Auto Power Off	•	•	•	•	•	•
Measurement category	CAT III/600V	CAT IV 600V, III 1000V				
Safety cert.	DIN VDE 0411/ EN 61010					
Dimension	147 x 60 x 32 mm	219 x 77x 37 mm	224 x 77x 37 mm	219 x 77x 37 mm	224 x 77x 37 mm	258 x 94 x 44 mm
Weight	140 g	208 g	254 g	208 g	254 g	420 g

# **Current Clamps**















	ACD-10 PLUS	ACD-14-PRO-EUR	ACD-23SW	CHB 15	CHB 35	ACDC-100	ACDC-100 TRMS
Max. current	600 A	600 A	400 A	200 A	400 A	800 A AC/1000 A DC	800 A AC/1000 A DC
Current type	AC	AC	AC	AC/DC	AC/DC	AC/DC	AC/DC
True RMS measurement	-	-	•	-	•	-	•
Display	3¾ digit, 4000 digits	3¾ digit, 4000 digits	3¾ digit, 3999 digits	3¾ digit, 3999 digits	3¾ digit, 3999 digits	3¾ digit, 4000 digits	3¾ digit, 4000 digits
Current AC	0.01 A 600 A	0.01 A 600 A	0.01 A 400 A	0.01A200 A	0.001 A400 A	0.1 A800 A	0.1 A800 A
Basic Accuracy*	1.5% + 8 digits	1.9% + 8 digits	2% + 6 digits	2% + 4 digits	2% + 3 digits	1.5% + 5 digits	1.5% + 5 digits
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	40Hz1kHz	40Hz1kHz	40200 Hz	40200 Hz
Current DC	-	_	-	0.01 A200 A	0.01 A400 A	0.1 A1000 A	0.1 A1000 A
Basic Accuracy*	-	_	-	2% + 2 digits	2% + 2 digits	1.5% + 4 digits	1.5% + 4 digits
Voltage AC	0.001 V 600 V	0.001 V 600 V	1 mV 600 V	0.1 V400 V	_	0.1 mV600 V	0.1 mV600 V
Basic Accuracy*	1.5% + 5 digits	1.5% + 5 digits	1.2% + 5 digits	2% + +2	_	1% + 4 digits	1% + 4 digits
Frequency	50500 Hz	50400 Hz	50500 Hz	40Hz1kHz	_	50500 Hz	50500 Hz
Voltage DC	0.1 mV 600 V	0.1 V 600 V	0.1 mV 600 V	0.1 V400 V	_	0.1 mV600 V	0.1 mV600 V
Basic Accuracy*	0.5 % + 3 digits	0.5 % + 3 digits	0.5 % + 2 digits	2% + +2	_	0.5 % + 3 digits	0.5 % + 3 digits
Resistance	0.1 Ω40.00 ΜΩΩ	0.1 Ω 40.00 ΜΩΩ	0.1Ω40.00 ΜΩΩ	0.1 Ω400 Ω	-	0.1 Ω40 ΜΩ	0.1 Ω40 ΜΩ
Basic Accuracy*	1.0% + 4 digits	0.8% + 6 digits	1.0% + 4 digits	2% + 2 digits	_	0.8% + 6 digits	0.8% + 6 digits
Continuity test	R < 120 Ω	R < 120 Ω	R < 25 Ω	R < 40 ΩΩ	-	R < 120 Ω	R < 120 Ω
Frequency verification	0.001Hz100kHz	0.001Hz100kHz	-	0.01 Hz50 kHz	0.01 Hz9.99 kHz	R < 120 Ω	R < 120 Ω
Power measurement	-	-	-	-	-	-	-
Data Hold	•	•	•	•	•	-	•
MIN/MAX/Peak Hold	•	•		•	•	-	-
Capacitance measurement	•	•	•	-	-	-	-
Jaw opening	25 mm	26 mm	30 mm	23 mm	23 mm	50 mm	50 mm
Power supply	1x 3V, IEC/CR2032	2x 3 V, IEC/CR2032	2x 1.5 V, IEC LR03	2x 1.5 V, IEC LR6	2x 1.5 V, IEC LR6	2x 1.5 V, IEC LR03	2x 1.5 V, IEC R03
Auto Power Off	•	•	•			•	•
Measurement Category	CATIII/600 V	CATIII/600 V	CATIII/600 V	CATII/600 V	CATII/600 V	CATIII/600 V	CATIII/600 V
Safety cert.	DIN VDE 0411/ EN 61010/IEC 61010	DIN VDE 0411/ EN 61010	DIN VDE 0411/ EN 61010/IEC 61010	DIN VDE 0411/ EN 61010/IEC 61010	DIN VDE 0411/ EN 61010/IEC 61010	EN 61010/ IEC 61010	EN 61010/ IEC 61010
Dimension	190 x 63 x 32 mm	219 x 77x 37 mm	240 x 70 x 41 mm	183 x 64 x 36 mm	183 x 64 x 36 mm	227 x 78 x 40 mm	227 x 78 x 40 mm
Weight	150 g	208 g	220 g	190 g	190 g	290 g	290 g

<sup>\* =</sup> Basic accuracy figures are with regard to the best level of accuracy of the relevant measurement function



**Current Clamp Meters:** AC/DC Current measurement Power Quality Leakage Current













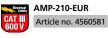
	ACD-52NAV	ACD-54NAV	ACDC-3400 IND	ALC-110-EUR	СНВ 5	LH41A
Max. current	600 A	1000 A AC/DC	1000 A	60 A	50 A	40 A
Current type	AC/DC	AC/DC	AC/DC	AC	AC	AC/DC
True RMS measurement	•	•	•	•	•	_
Leakage current measurement	-	-	_	ecc. IEC 61557-13	•	-
Display	3¾ digit, 4000 digits	3¾ digit, 4000 digits	3¾ digit, 6600 digits	6000 counts	4 digit, 9999 digits	4 digit, 4000 digits
Current AC	0.01 600 A	0.01 1000 A	0.1 A1000 A	0.01 mA60 A	0.5 mA50 A	0.00140 A
Basic Accuracy*	1.5% + 5 digits	1.5% + 5 digits	2% + 10 digits	5.0% + 5 digits 2.0% + 5 digits	1.5% + 5 digits	1.3% + 5 digits
Frequency	50 Hz400 Hz	50 Hz400 Hz	50 Hz1 kHz	15 Hz1 kHz	45 Hz1 kHz	40400 Hz
Current DC	0.1 A600 A	0.1 A1000 A	0.1 A1000 A	_	_	0.001 A40 A
Basic Accuracy*	1.5% + 5 digits	1.5% + 5 digits	2% + 5 digits	-	-	1.3% + 5 digits
Voltage AC	0.01 V 1000 V	0.01 V 1000 V	0.1 mV750 V	-	0.1 mV600 V	_
Basic Accuracy*	1% + 5 digits	1% + 5 digits	1.5% + 8 digits	-	0.5% + 5 digits	-
Frequency	50 Hz500 Hz	50 Hz500 Hz	50 Hz1kHz	-	50 Hz1kHz	_
Voltage DC	0.01 1000 V	0.01 1000 V	0.1 mV1000 V	-	-	-
Basic Accuracy*	0.7 % + 2 digits	0.7 % + 2 digits	0.5 % + 2 digits	-	_	_
Resistance	1 Ω99.99 kΩ	1 Ω99.99 kΩ	0.1 Ω66.00 ΜΩ	-	_	-
Basic Accuracy*	1% + 3 digits	1% + 3 digits	1% + 5 digits	-	_	-
Continuity test	R < 30 Ω	R < 30 Ω	R < 30 Ω	-	-	-
Frequency verification	20.009,999 kHz	20.009,999 kHz	0.01 Hz1000 MHz	-	45 Hz65 Hz	-
Power measurement	0600 kW	0999 kW	-	-	-	-
Data Hold	•	•	•	•	•	•
MIN/MAX/Peak Hold	•	•	•	•	•	_
Capacitance measurement	0.014000 μF	0.014000 μF	0.001 nF6.6 mF	-	-	-
Jaw opening	42 mm	42 mm	51 mm	30 mm	30 mm	19 mm
Power supply	9 V, IEC 6F22	9 V, IEC 6F22	1x 9 V, IEC 6F22	2x 1.5 V, IEC LR03 AAA	2x 1.5 V, IEC LR6	1x 9 V, IEC 6LR61
Auto Power Off	•	•	•	•		•
Measurement Category	CAT IV / 600 V CAT III / 1000 V	CAT IV / 600 V CAT III / 1000 V	CAT III / 1000 V CAT IV / 600 V	CAT III 600 V	CAT III / 600 V CAT III / 300 V	CATIII / 300 V
Safety cert.	DIN VDE 0411/ EN 61010/IEC 61010	DIN VDE 0411/ EN 61010/IEC 61010	EN 61010/IEC 61010	IEC 61010-1, IEC 61010-2-032, IEC 61557-13	DIN VDE 0411/ EN 61010/IEC 61010	DIN VDE 0411/ EN 61010/IEC 61010
Dimension	260 x 80 x 40 mm	260 x 80 x 40 mm	218 x 105x 53 mm	221 x 89 x 48 mm	210 x 62x 36 mm	184 x 71x 31 mm
Weight	480 g	480 g	560 g	410 g	200 g	235 g

<sup>\* =</sup> Basic accuracy figures are with regard to the best level of accuracy of the relevant measurement function

# Pocket-sized 14,7 cm height

AMP-25-EUR Article no. 4588268











# AMP-25-EUR

# TRMS Mini current clamp (AC/DC)

- True RMS current measurement
- Low pass filter
- Measurement of inrush current
- Non-contact voltage detection

# **Product information**

- Automatic range selection
- Zero adjustment

- Integrated measurement memory (data hold)
- Jaw opening 25 mm
- Auto Power Off

# **Product highlights**

- Very compact designIlluminated display

Included: 1x AMP-25, 2x Batteries 1.5V, IEC LR 44, 1x Carrying case, 1x User manual



# AMP-210-EUR

# TRMS Current clamp (AC)

# **Functions**

- Current, voltage and resistance measurement
- Capacitance and frequency measurement
- Continuity beeper
- Low pass filter
- Measurement of inrush current
- Non-contact voltage detection

# **Product information**

- Automatic range selection
- Zero adjustment, relative value measurement

- Integrated measurement memory (Data Hold, MIN/MAX)
- Jaw opening 30 mm
- Auto Power Off

# **Product highlights**

- Precise measurement of smaller currents (Amp-Tip)
- Illuminated display
- Diode test

# AMP-220-EUR

# TRMS Current clamp (AC)

# As AM-210-EUR, but with:

- DC Current Function
- Display of mixed currents AC+DC (TRMS)
- Display of mixed voltages AC+DC (TRMS)
- Jaw opening 35 mm

Included: 1x AMP-210-EUR or AMP-220-EUR, 2x Test leads, 2x Batteries 1.5 V, IEC LR 03, 1x Carrying case, 1x User manual



# AMP-200 and AMP-300 Series

# TRMS and Motor Maintenance Current Clamp Meters

The AMP-200 and -300 Series True-RMS Clamp Meters offer a complete range of measurement functions for modern electrical environments, motor testing and HVAC applications. All models feature True-RMS sensing, low pass filters and fast response processors for quick, error-free measurements. The new Amp-Tip function allows for precise measurement of current down to the tenth of an Amp, and a third input jack on the AMP-300 Series enables motor rotation and 3-phase sequence testing. These clamps are surprisingly versatile, designed to eliminate the need for multiple tools and provide all-in-one measurement capabilities.

# AMP-310-EUR

# TRMS Motor maintenance current clamp (AC)

- Current, voltage and resistance measurement
- Capacitance and frequency measurement
- Measurement of ionization current (µA DC range)
- Temperature measurement
- · Continuity beeper
- Low pass filter
- Measurement of inrush current
- Non-contact voltage detection

# **Product information**

- Automatic range selection
- Zero adjustment, relative value measurement
- Integrated measurement memory (Data Hold, MIN/MAX)
- Jaw opening 30 mm
- Auto Power Off

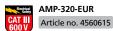
# **Product highlights**

- Precise measurement of smaller currents (Amp-Tip)
- Displays rotary field direction and motor rotation direction
- Measurement of ionization current (uA DC range) in heating systems
- Thermometer -40°C to 400°C
- Illuminated display

















# AMP-320-EUR

# TRMS Motor maintenance current clamp (AC/DC)

# As AM-310-EUR, but with:

- DC Current Function
- Display of mixed currents AC+DC (TRMS)
- Display of mixed voltages AC+DC (TRMS)
- Jaw opening 35 mm

# AMP-330-EUR

# TRMS Motor maintenance current clamp (AC/DC)

# As AMP-320-EUR, but with:

- Voltage measurement up to 1000 AAC/DC
- AC and DC voltage measurements to 1000 V
- Measurement categories CAT IV 600 V, CAT III 1000 V
- Flashlight function
- Jaw opening 51 mm

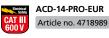
Included: 1x AMP-310-EUR or AMP-320-EUR, 2x Test leads, 2x Crocodile clips, 1x Temperature probe, 2x Battery 1.5 V, IEC LR 03 (or IEC LR 06), 1x Carrying case, 1x User manual





Article no. 3037808







Article no. 3804941



# **ACD-10 PLUS**

# Current clamp (AC)

- Current, voltage and resistance measurement
- · Continuity beeper
- Diode test
- Capacitance and frequency . measurement
- · Measurement of inrush current (30 ms)

# **Product information**

- Automatic range selection
- Integrated measurement memory (Data hold and MAX hold)
- Jaw opening 25 mm
- Auto Power Off

# **Product highlights**

Narrow jaws

Included: 1x ACD-10 PLUS, 2x Test leads, 1x Battery 3 V, IEC CR2032, 1x Carrying case, 1x User manual

# **ACD-14-PRO-EUR**

# Current clamp with dual display (AC)

# **Functions**

- True RMS current measurement
- Voltage and resistance measurement
- Capacitance and frequency measurement
- Temperature measurement
- Continuity beeper
- · Low pass filter
- Measurement of inrush current
- Non-contact voltage detection

# **Product information**

- Automatic range selection
- Integrated measurement memory (data hold)
- Jaw opening 30 mm
- Auto Power Off

# **Product highlights**

- Dual display with illumination
- Precise measurement of small AC currents (Amp-Tip)
- Measurement of ionization current (2000  $\mu A$  DC range) in heating
- True RMS measurement (TRMS)

Included: 1x ACD-14-PRO-EUR, 2x Test leads, 1x Temperature probe, 2x Batteries 1.5 V, IEC LR 03, 1x Carrying case, 1x User manual



# ACD-23SW

# Swivel clamp meter TRMS (AC)

# **Functions**

- Current, voltage and resistance measurement
- Audible continuity and diode test
- Capacitance and temperature measurement

# **Product information**

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Jaw opening approx. 30 mmAuto Power Off

# **Product highlights**

- Clamp head swivels up to 180°
- Non-contact voltage detection
- True RMS measurement (TRMS)

Included: 1x ACD-23SW, 2x Test leads, 2x Battery 1.5V, IEC LR03, 1x Temperature probe, 1x Carrying case, 1x User manual

A·AMPROBE<sup>®</sup>

CHB15

**CHB35** 

Article no. 3454469

# CHB15

# Current clamp (AC/DC)

- Current, voltage and resistance measurement
- Continuity beeper
- Frequency verification

# **Product information**

- Manual range selection
- Integrated measurement memory (data hold)
- MIN/MAX and relative value measurement
- Additional bar graph display
- Jaw opening 23 mm

# **Product highlights**

 AC/DC clamps are also suitable for automotive applications, emergency power supplies and solar technology.

Included: 1x CHB15, 2x Test leads, 2x Battery 1.5 V, IEC LR6, 1x Carrying case, 1x User manual

# CHB35

# TRMS current clamp (AC/DC)

# **Functions**

- · Current measurement
- Frequency measurement (non-contact)

# **Product information**

- Manual range selection
- Integrated measurement memory (data hold)
- MIN/MAX and relative value measurement
- Additional bar graph display
- Jaw opening 23 mm

# **Product highlights**

- AC/DC clamps are also suitable for automotive applications, emergency power supplies and solar technology.
- True RMS measurement (TRMS)

Included: 1x CHB35, 2x Battery 1.5 V, IEC LR6, 1x Carrying case, 1x User manual



# **ACDC-52NAV**

# CAT IV Navigator™ power clamp meter 600 A (AC/DC) TRMS

# **Functions**

- Current, voltage and resistance measurement
- Continuity beeper
- Capacitance and frequency measurement
- Measurement of active power
- Measuring the power factor cos
- Harmonics measurement for current and voltage values (up to the 25th harmonic)
- Measurement of total harmonic distortion (THD)
- · Measurement of inrush current for motors

# **Product information**

- Automatic and manual range selection
- Integrated measurement memory (MIN/MAX and Data Hold)
- Peak value memory (Peak Hold)Rotary field measurement
- Low pass filter for measurement of frequency converters
- Large digit display with backlit display and analog bar graph
- Jaw opening 42 mm
- Auto Power Off

# **Product highlights**

- AC/DC true RMS measurement (TRMS)
- Automatic flashlight function on opening the jaws
- Non-contact voltage detection

• Non-contact voltage detection

• Functions can be selected via a joystick











Included: 1x ACDC-52NAV, 2x Test leads, 1x Battery 9 V, IEC 6F22, 1x Carrying case, 1x User manual

# **ACDC-54NAV**

# CAT IV Navigator™ power clamp meter 1000 A (AC/DC) TRMS

# **Functions**

- Current, voltage and resistance measurement
- Continuity beeper
- · Capacitance and frequency measurement
- Temperature measurement
- Measurement of active power
- · Measuring the power factor cos
- · Harmonics measurement for current and voltage values (up to the 25th harmonic)
- · Measurement of total harmonic distortion (THD)
- · Measurement of inrush current for motors

# **Product information**

- Automatic and manual range selection
   Functions can be selected via a joystick
- Integrated measurement memory (MIN/MAX and Data Hold)
- Peak value memory (Peak Hold)
- Rotary field measurement
- · Low pass filter for measurement of frequency converters
- · Large digit display with backlit display and analog bar graph
- Jaw opening 42 mm
- Auto Power Off

# **Product highlights**

- AC/DC true RMS measurement (TRMS)
- Automatic flashlight function on opening the jaws

Included: 1x ACDC-54NAV, 2x Test leads, 1x Temperature probe, 1x Battery 9 V, IEC 6F22, 1x Carrying case, 1x User manual





Leakage Current Measurement
High-resolution current clamps for leakage currents over 10 µA are indispensable, particularly for troubleshooting or for testing units and systems in accordance with the Ordinance on Industrial Safety and Health (DGUV Regulation 3). Currents that do not flow back via an electrical conductor (e.g. N) can be quickly, simply, and safely measured by covering all active conductors (e.g. L1, L2, L3, N, or L1, N).

# **ACDC-3400 IND**

# CAT IV TRMS clamp meter for industrial applications up to 1000 A (AC/DC)

# **Functions**

- Current, voltage and resistance measurement
- Continuity beeper
- Frequency verification
- Capacitance measurement
- Peak value measurement
- Duty cycle function

- Automatic and manual range selection
- Integrated measurement memory (Data hold and Peak hold)
- Additional bar graph display

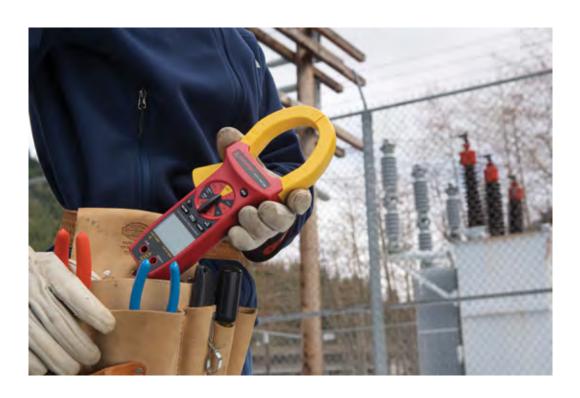
**Product information** 

- Illuminated display
- Auto Power Off
- Relative value measurement
- Jaw opening: 51 mm

Included: 1x ACDC-3400 IND, 2x Test leads, 1x Battery 9 V, IEC 6F22, 1x Carrying case, 1x User manual



• True RMS measurement (TRMS)





# CHB5

# Digital leakage current clamp with harmonics measurement TRMS (AC)

# **Functions**

- Leakage test
- Stray current measurement (leakage current measurement) TRMS
- Voltage measurement (TRMS)
- Frequency verification
- Harmonics measurement for current and voltage values (up to 99th harmonic)

# **Product information**

- Integrated measurement memory (data hold)
- MIN/MAX value measurement
- Jaw opening 30 mmAuto Power Off

# **Product highlights**

- Minimum resolution: 0.01 mA
- Harmonics measurement up to 99th peak value measurement

Included: 1x CHB5, 2x Test leads, 2x Battery 1.5 V, IEC LR6, 1x Carrying case, 1x User manual

• Range of applications: Measurement of leakage currents, e.g. stray or residual currents, current consumption of units in service or customer service sector without interruption to circuit

#### ALC-110-EUR

#### Leakage current clamp meter

- True-rms measurements for accuracy when measuring complex, nonsinusoidal waveforms
- Max readings and hold function
- Measurement of earth leakage current
- Measurement of differential leakage currents
- Measurement of leakage current through the earth (PE) conductor
- Tracing the source of earth leakage current
- Measurement of current consumption of appliances in service or customer service sector without interruption to the circuit

#### **Product information**

• Low influence of external low frequency magnetic fields: = 30 A/m, operating class 2 @IN: 3.500 mA -600.0 mA

- Mechanical lock of the jaw; jaw opening 30 mm (1.2 in)
- Highest resolution of 0.001 mA, measure up to 60 A
- Selectable limits: 0.25mA, 0.5mA, 3.5mA, 10mA, 12mA
- Selectable filters:
- - Low Pass Filter Function for appliance measuring (acc. IEC/EN 61557-16 amendment A)
- - 50/60 Hz filter
- - no filter

#### **Product highlights**

- Following the standard for leakage current clamps IEC/EN 61557-13
- Selectable filter function removes unwanted noise
- Broad frequency range 15 Hz to 1 kHz which makes this clamp ideal for a wide range of applications including industrial and railway application

Included: 1x ALC-110-EUR, 2x Battery (IEC LR03, Alkaline (AAA), 1x Soft carrying case, 1x User manual



• Auto power-off to save battery life

• Backlit display; auto backlight off and auto power off for extended battery







#### Recommended Accessories Accessories for all Leakage Current Clamp Meters:

See accessory section for more details



Adapters for stray current measurements:

Schuko/Schuko\* Model 1233

Article no. 2145900

\* only for countries with Schuko plug



CEE 5-pole 16 A Model 1235

Article no. 2145921

CEE 5-pole 32 A Model 1236

Article no. 2145939



Safety set Model 370003 Article no. 2146666



Test lead set with crocodile clips Model TL36A



Article no. 3030898



#### LH41A

#### Digital current clamp (AC/DC)

 Current measurement from 1 mA AC and DC

#### **Product information**

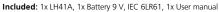
- Manual range selection
- Jaw opening 19 mm
- Automatic zero-point (DC measurement range)
- Integrated 5 s measurement memory (data hold)
- Auto Power Off

#### **Product highlights**

- Minimum resolution: 1 mA Shielded against external interference

#### **Technical specifications**

recilincal specifications	
Display	LCD, 4 digit, 4000 digits
Ranges	
Current AC/DC	0.00140 A
Basic accuracy	±(1.3 % rdg. + 5 digits)
Frequency range	40400 Hz
Pollution degree	2
Measurement category	CAT III / 300 V
Safety cert.:	DIN VDE 0411/EN 61010/IEC 61010
Jaw opening	approx. 19 mm
Power supply	1 x battery 9 V, IEC 6LR61
Dimensions	184 x 71 x 31 mm
Weight	approx. 235 g







CT235A Article no. 3026809



#### **CT235A**

#### Current clamp adapter (AC/DC)

• Clamp adapter for extending the AC and DC ranges of multimeters up to 1000 A AC/DC

#### **Product information**

• Can be used with all common multimeters; also compatible with TRUE RMS multimeters and analogue

- Output Signal: 1 mV corresponds to 1 A test current
- Jaw opening 32 mm
- Fixed test leads
- Zero adjustment

#### **CT237B**

#### Current clamp adapter (AC/DC)

Clamp adapter for extending the AC and DC ranges of multimeters up to 200 A AC/DC

#### **Product information**

- Can be used with all common multimeters; also compatible with TRUE RMS multimeters and analogue recorders
- Output Signal: 10 mV corresponds to 1 A test current
- Jaw opening 20 mm
- Fixed test leads
- Zero adjustment

#### Technical specifications

recrimical specifications		
	CT235A	CT237B
Ranges		
Current AC/DC	200 A, 1000 A	20 A, 200 A
Basic accuracy	± (1 % + 0.5 A)	± (1.2 % + 0.03 A)
Output voltage	1mV/A	10 mV/A (20 A measurement range)
		1 mV/A (200 A measurement range)
AC frequency range	50 Hz 10 kHz	50 Hz 1 kHz
Pollution degree	2	2
Measurement category	CAT III/300 V	CAT III/300 V
Safety cert.:	DIN VDE 0411/EN 61010/IEC 61010	DIN VDE 0411/EN 61010/IEC 61010
Jaw opening	approx. 32 mm	approx. 20 mm
Length of connection cable	approx. 1.5 m	approx. 1.5 m
Power supply	1x battery 9 V, IEC 6F22	1 x battery 9 V, IEC 6F22
Dimensions	approx. 195 x 70 x 30 mm	approx. 185 x 70 x 30 mm
Weight	approx. 300 g	approx. 280 g

Included: 1x CT237B or 1x CT235A, 1x Battery 9 V, IEC 6F22, 1x User manual



CT237B Article no. 3511514





# Test and Measurement equipment

in accordance with (inter)national standards

Measurement and test equipment in accordance with DIN/VDE and EN 61557 are used to check electrical safety in order to establish safety for people and objects. Our measurement and test equipment is divided into three groups in accordance with the tests that are to be performed:

- Testing electric machines (stationary) in accordance with DIN VDE 0100/0105 and EN 61557
- Testing electric equipment (portable) in accordance with DIN VDE 0701-0702 and EN 61557
- Testing electric machines in accordance with DIN VDE 0113 and EN 61557

This equipment was developed in accordance with the user's requirements and standards in order to carry out tests in a fast, simple, and safe manner.

Most of our measurement and test equipment also provide an integrated measurement memory for creating a measurement report to make logging along with our software packages much more effective.

#### \*Products are available only in UK

# ROBIN MARKET PARKET PAR

KMP7010 Article no. 3730256



#### **KMP7010**

# Ground Resistance Tester according to BS7671 IEE 17th Edition regulations

#### **Functions**

- Measures Earth ground resistance
- Measure resistance of the grounding systems to verify that the system has low enough resistance to provide protection for people, equipment and structures

#### **Product information**

- Measures Earth ground resistance 3 point (fall of potential) or 2 point tests
- Voltage measurement prevents false measurements
- Built-in memory to store 20 measurements
- Safety CAT III 600V

#### **Product highlights**

- Designed to allow testing to BS7671 IEE 17th Edition regulations, BS EN 61010-1 BS EN 61557-1, BS EN 61557-5, BS EN 61326-1 (EMC)
- Test leads, auxiliary electrodes are included for a complete instrument

#### **Technical specifications** (At 23°C ± 5°C. 45% to 75% RH)

Earth Resistance	$0.00\Omega \sim 40.00\Omega$	± (2% rdg + 20 LSD)	
Measurement	$0.0\Omega \sim 40.00\Omega$	$\pm$ (2% rdg + 3 LSD)	
	$0\Omega \sim 40.00\Omega$	$\pm$ (2% rdg + 3 LSD)	
Voltage Measurement	0Vac ~ 400Vac	± (1% rdg + 6 LSD) @ 50/ 60 Hz	
Operating Temperature	+5°C to +40°C. ≤80% RH, no condens	ation	
Storage Temperature	-20°C to +60°C. ≤90% RH, no condensation (without batteries)		
Power Supply	1.5V Alkaline Battery (AA Battery) x 6 p	ocs	
Dimensions (L x W x H)	160 x 101 x 71 mm (6.3 x 3.98 x 2.79 i	n)	
Product Weight	Approx. 500g (1.1 lb) with batteries installed		
Regulation Compliance	Designed to allow testing to BS7671, IEE 17th Edition regulations		
	BS EN 61010-1 CAT III 400V, BS EN 61	557-1. BS EN 61557-5, BS EN 61326-1 (EMC)	

Included: 1x Test lead set for 3 point test, 1x Auxiliary ground rods, 1x Test lead set for 2 point test, 1x Batteries (6x AA), 1x User manual, 1x Strap and carrying case



KMP7021 Article no. 3730301

#### **KMP7021**

# Digital RCD Tester according to BS7671 IEE 17th Edition regulations

#### **Functions**

 Designed to check for correct operation of RCD devices

#### **Product information**

- Three levels of trip currents (x1/2, x1, x5) for complete range of testing applications: Fast Trip Function and Ramp Test
- Phase switch selection 0° and 180° for positive and negative semi-cycle testing
- Large display
- Safety CAT III 300 V

#### **Product highlights**

- 3-LED proper connection indicator Displays mains voltage before test
- Designed to allow testing to BS7671 IEE 17th Edition regulations, BS EN 61010-1 CAT III 300V, BS EN 61557-1, BS EN 61557-3, BS EN 61326-1 (EMC)

#### **Technical specifications**

Specifications (At 23°C ± 5°C. 45% to 75% RH)

	,	
Operating Voltage	230Vac, 50 Hz	+10% to -15%
Trip current @ X½	10/20/30/100/300/500mA	Trip current tolerance:
	(trip time 0 to 2000ms)	-10% to +10%
		Trip time: ± (2% rdg + 2 LSD)
Trip current @ X1	10/20/30/100/300mA	Trip current tolerance:
	(trip time 0 to 10000ms) 500mA	0% to +10%
	(trip time 0 to 300ms)	Trip time: ± (2% rdg + 2 LSD)
Trip current @ X5	10/20/30mA	Trip current tolerance:
	(trip time 0 to 40ms)	0% to +10%
		Trip time: ± (2% rdg + 2 LSD)
Fast Trip Current	250mA (trip time 0 to 40ms)	Trip current tolerance:
	(KMP7021)	0% to +10%
		Trip time: ± (2% rdg + 2 LSD)
Ramp Test (KMP7021)	10/20/30/100/300/500mA -10% to +10	
	Default nominal residual currents from	20% to 110%, Maximum measuring time 300ms x 10 times
Operating Temperature	+0°C to +40°C. ≤80% RH, no condensati	ation
Storage Temperature	-20°C to +60°C. ≤90% RH, no condensation	
Power Supply	AC mains 230V + 10% - 15%, 50 Hz	
Dimensions (L x W x H)	160 x 101 x 71 mm (6.3 x 3.98 x 2.79 in)	
Product Weight	Approx. 450g (0.99 lb)	
Regulation Compliance	Designed to allow testing to BS7671, IE	E 17th Edition regulations
	BS EN 61010-1 CAT III 300V, BS EN 615	57-1. BS EN 61557-6, BS EN 61326-1 (EMC)

Included: 1x 3-Wires mains test cord, 1x Test lead set with leads/probes/alligator clips, 1x User manual, 1x Strap and carrying case



#### \*Products are available only in UK

# BEHA AMPROBE°

#### **KMP7030**

# Loop Impedance Tester according to BS7671 IEE 17th Edition regulations

#### **Functions**

- Non Trip Loop test
- Loop testing is a quick, convenient, and highly specific method of evaluating an electrical circuit for its ability to engage protective devices (circuit breakers, fuses, RCDs)
- A ground loop determines the effectiveness of protective devices, therefore it is crucial to be able to measure it, in order to detect and correct problems

#### **Product information**

- Fast testing
- Instant reading
- Loop measurement ranges: 20, 200  $\&~2000\Omega$
- PSC measurement up to 20kA
- Backlight display
- Low Battery Indication
- CAT III 300V

#### **Product highlights**

- Displays mains voltage before test
- Instant correct wiring status check

 Designed to allow testing to BS7671 IEE 17th Edition regulations, BS EN 61010-1 CAT III 300V, BS EN 61557-1, BS EN 61557-3, BS EN 61326-1 (EMC)



KMP7030 Article no. 3842833

Technical specifications Specifications (At 23°C ± 5°C. 45% to 75% RH)

	Team of the content o			
Operating Voltage	230Vac, 45Hz ~ 65 Hz	+10% to - 15%		
Loop Impedance 20/200/2000Ω	0 ~ 19.99 / 199.9 / 1999 Ω	$\pm$ (3% rdg + 4 LSD)		
AC Test Current	25A Nominal at 20Ω			
AC Test Period	10ms at $20\Omega$			
No Trip Loop Impedance	0 ~ 19.99 / 199.9 Ω	± (3% rdg + 6 LSD)		
20 / 200Ω	(L – N im-pedance > 20 Ω)			
PSC Measurement 200A / 2000A / 20kA	0.0 ~ 1999.9 / 1999 / 19.9kA	PSC accuracy derived from measured loop impedance specification and measured voltage specification		
Voltage Measurement	100Vac ~ 300Vac	± (2% rdg + 4 LSD), @ 50/60Hz		
Operating Temperature	0°C to +40°C. ≤85% RH, no condensation			
Storage Temperature	-20°C to +60°C. ≤90% RH, no condensation (without batteries)			
Power Supply	1.5V Alkaline Battery (AA Battery) x 8 pcs			
Dimensions (L x W x H)	189 x 168 x 85 mm (7.43 x 6.65 x 3.35 in)			
Product Weight	Approx. 450g (0.99 lb)			
Regulation Compliance	Designed to allow testing to BS7671, IE	E 17th Edition regulations, BS EN 61010-1 CAT III 300V		

Included: 1x Mains test cord, 1x Test lead set with IEC connector, 1x Test probe set, 1x Alligator clip set, 1x batteries (8x AA), 1x User manual, 1x Strap and carrying case

#### **KMP7036**

# Insulation-Continuity Tester according BS7671 IEE 17th Edition regulations

#### **Functions**

• Tests insulation of wires, cables, transformers and electrical motors

#### **Product information**

- Selectable test voltages 250V, 500V and 1000V
- Test button hold to perform the Dielectric Absorption Ratio Test
- Continuity test at 200mA short-circuit
- Built in voltmeter and red light warning for live circuit indication
- Automatic discharge of test object after completion of measurement

- Test lead resistance zero facility
- Safety CAT III 600V

#### **Product highlights**

- Designed to diagnose the breakdown of the insulation in various parts of the electrical system such as wires, transformers and motors
- Three testing voltages covering wide range of commercial and residential applications
- The quality of insulation is critical to assure proper, uninterrupted and safe functioning of electrical circuits

 Designed to allow testing to BS7671 IEE 17th Edition regulations BS EN 61010-1 CAT III 600V, BS EN 61557-1 / -2 / -4 / -10, BS EN 61326-1 (EMC)



KMP7036 Article no. 3730274

#### **Technical specifications** Specifications (At 23°C ± 5°C. 45% to 75% RH)

To an included a procession of the contract of	.0.15 (11.25 0 2 5 0. 15/0 10 75/0 1	,		
Insulation Resistance	$0.00M\Omega \sim 4.99M\Omega$	± (3% rdg + 5 LSD) for		
@ 250V/500/1000V	5.0MΩ ~ 49.9MΩ	$0.00M\Omega \sim 99.9M\Omega$		
(Test Current ≥1 mA)	$50M\Omega \sim 999\Omega$	± (5% rdg + 5 LSD) for		
	1.00GΩ ~ 1.99GΩ	$100$ M $\Omega$ ~ $1.99$ G $\Omega$		
	(Buzzer threshold: 4MΩ)			
Continuity	$0.00M\Omega \sim 9.99M\Omega$	± (2% rdg + 3 LSD)		
@ IN ≥200mA,Uo=5Vdc (Nominal)	$10.0M\Omega \sim 99.9M\Omega$	@ 50/ 60 Hz		
Operating Temperature	0°C to +35°C. ≤75% RH, no	0°C to +35°C. ≤75% RH, no condensation		
Storage Temperature	-20°C to +60°C. ≤80% RH, ne	-20°C to +60°C. ≤80% RH, no condensation (without batteries)		
Power Supply	1.5V Alkaline Battery (AA Bat	1.5V Alkaline Battery (AA Battery) x 6 pcs		
Dimensions (L x W x H)	160 x 101 x 71 mm (6.3 x 3.9	160 x 101 x 71 mm (6.3 x 3.98 x 2.79 in)		
Product Weight	Approx. 450g (0.99 lb) with b	Approx. 450g (0.99 lb) with batteries installed		
Regulation Compliance	Designed to allow testing to E	S7671, IEE 17th Edition regulations, BS EN 61010-1	CAT III 600V,	
	BS EN 61557-1 / -2 / -4 / -10,	BS EN 61557-1 / -2 / -4 / -10, BS EN 61326-1 (EMC)		

Included: 2x Test leads, 2x Test probes, 2x alligator clips 1x batteries (8x AA), 1x User manual, 1x Strap and carrying case

#### **Recommended Accessories**

See accessory section for more details.

#### Accessories for Ground KMP7000 Series:

Standard test lead set for KMP7030

model SL7030 Article no. 4160744

Single function tester kit carry bag model KP1700

# **Multifunction Installation Testers**







	Proinstall-75	Proinstall-100	Proinstall-200
Voltage & frequency display	•	•	•
Wiring polarity checker	•		
Low Ohm resistance		•	•
Insulation resistance	•	•	•
Continuity & resistance	•	•	•
Loop/line impedance	•	•	•
Loop impedance without tripping RCDs	•	•	•
PSC (short-circuit current)	•	•	•
RCD trip time	•	•	•
RCD trip current (ramp function)	•	•	•
Automatic RCD test sequence	•		•
Test AC and pulsed AC sensitive RCDs (Type AC, type A, type F, type G/R)	Type A	•	•
Test smooth DC sensitive RCDs (Type B, B+)	-	-	•
Earth resistance with rods	-	-	•
Phase sequence test	•	•	•
Illuminated display	LCD, 4 digit, 9999 digits	•	•
Memory	approx. 400 readings	approx. 400 readings	approx. 1000 readings
Display range / resolution			
Voltage	50500 V / 0.1V AC	50500 V / 0.1V AC	50500 V / 0.1V AC
Frequency	4565 Hz	-	-
Loop impedance	10 Ω / 0.001 Ω 20 Ω / 0.01 Ω 200 Ω / 0.1 Ω 2000 Ω / 1 Ω	0-20 Ω / 0.01 Ω 200 Ω / 0.1 Ω 2000 Ω / 1 Ω	0-20 Ω / 0.01 Ω 200 Ω / 0.1 Ω 2000 Ω / 1 Ω
Input voltage range	100500 V 50/60 Hz	100500 V 50/60 Hz	100500 V 50/60 Hz
Insulation resistance	50 V -10kΩ-50MΩ / 0.01 MΩ 100V -100kΩ-20MΩ / 0.01 MΩ -20MΩ-100MΩ / 0.1 MΩ 250V - 10kΩ-20MΩ / 0.01 MΩ -20MΩ-200MΩ / 0.1 MΩ 500V - 10kΩ-20MΩ / 0.01 MΩ -20MΩ-200MΩ / 0.1 MΩ -20MΩ-500MΩ / 1 MΩ 1000V -100kΩ-20MΩ / 0.01 MΩ -200MΩ-1000MΩ / 0.01 MΩ	100V - 0MΩ-20MΩ / 0.01 MΩ - 20MΩ-100MΩ / 0.1 MΩ 250V - 0MΩ-20MΩ / 0.01 MΩ - 20MΩ-200MΩ / 0.1 MΩ 500V - 0MΩ-200MΩ / 0.01 MΩ - 20MΩ-200MΩ / 0.1 MΩ - 20MΩ-500MΩ / 1 MΩ 1000V - 0MΩ-200MΩ / 0.01 MΩ - 200MΩ-1000MΩ / 1 MΩ	100V - 0MΩ-20MΩ / 0.01 MΩ - 20MΩ-100MΩ / 0.1 MΩ 250V - 0MΩ-20MΩ / 0.01 MΩ - 20MΩ-200MΩ / 0.1 MΩ 500V - 0MΩ-20MΩ / 0.1 MΩ - 20MΩ-200MΩ / 0.1 MΩ - 200MΩ-500MΩ / 1MΩ 1000V - 0MΩ-200MΩ / 0.01 MΩ - 200MΩ-1000MΩ / 1 MΩ
Test voltage	50, 100, 250, 500, 1000 V	100, 250, 500, 1000 V	100, 250, 500, 1000 V
Low Ohm resistance	-	0-20 Ω / 0.01 Ω 200 Ω / 0.1 Ω 2000 Ω / 1 Ω	0-20 Ω / 0.01 Ω 200 Ω / 0.1 Ω 2000 Ω / 1 Ω
RCD/FI rated residual currents	10, 30, 100, 300, 500, 1000 mA	10, 30, 100, 300, 500, 1000 mA	10, 30, 100, 300, 500, 1000 mA
Factors	x0.5, x1, x5 and AUTO	x0.5, x1, x5 and AUTO	x0.5, x1, x5 and AUTO
RCD/FI types	Standard AC, selective, pulsating, B-type	Standard AC, selective, pulsating	Standard AC, selective, pulsating, B-type
Phase rotation test - input voltage range	100500 V	100500 V	100500 V
Earth resistance	-	-	0-200 Ω / 0.1 Ω 2000Ω / 1 Ω
Safety Certification	EN61010-1. EN61557-1, EN61557-2, EN61557-3, EN61557-4, EN61557-6, EN61557-7, EN61557-10, BS7671	EN61010-1, EN/IEC 61010-031: 2002+A1:2008, VDE0411, EN61557-1, EN61557-2, EN61557-3, EN61557-4, EN61557-5, EN61557-6, EN61557-7, EN61557-10	EN61010-1, EN/IEC 61010-031: 2002+A1:2008, VDE0411. EN61557-1, EN61557-2, EN61557-3, EN61557-4, EN61557-5, EN61557-6, EN61557-7, EN61557-10
Measurement category	CAT III 500 V / CAT IV 300 V	CAT III 500 V / CAT IV 300 V	CAT III 500 V / CAT IV 300 V
Protection degree	IP40	IP40	IP40
Power supply	6x 1.5 V batteries type IEC LR6 (AA	) (supplied) , usable with 6x 1.2 V NiMH re	echargeable batteries (not supplied)
Size (L x W x H)	100 x 250 x 125 mm	115 x 255 x 130 mm	115 x 255 x 130 mm
Weight	1300 g	1450 g	1450 g

**ProInstall Ordering Information:**Select correct ProInstall model for your country

Version	Country	Model	Article no.
100-D	Germany, Austria only	ProInstall-100-D	4373971
200-D	Germany, Austria only	ProInstall-200-D	4373980
100-DK	Denmark only	ProInstall-100-DK	4399247
100-CH	Switzerland only	ProInstall-100-CH	4374484
200-CH	Switzerland only	ProInstall-200-CH	4374491
100-EUR	EU countries (except UK, Germany, Austria, Switzerland and Denmark)	ProInstall-100-EUR	4374504
200-EUR	EU countries (except UK, Germany, Austria, Switzerland and Denmark)	ProInstall-200-EUR	4374519
75-UK	UK/Ireland only	ProInstall-75-UK	4826466







#### TELARIS<sup>®</sup>ProInstall-100

#### Combined installation measurement equipment

#### **Functions**

- Measurement of loop resistance
- Measurement of internal network resistance
- Measurement of short circuit current
- Low resistance and continuity measurement
- Insulation test
- RCD/FI measurement (contact voltage, trip time, trip current - increasing current)
- Voltage and frequency measurement

#### **Product information**

• Memory for approx. 400 readings with 3 levels for assignment of distribution list numbers and circuit numbers

- IR/USB interface for transferring the stored measurement values to a PC
- Software for logging is optionally available for printing out a test report
- Integrated socket test with contact electrode for identification of incorrectly connected sockets or missing protective earth
- Easy-to-read, large LC display with back lighting and an especially large viewing angle
- Auto Power Off

#### **Product highlights**

• Compact, robust construction enables work to take place even in harsh environments (weighs only 1500g)

- A simple to use and intuitive user interface enables you to work immediately and efficiently
- Probe with test button

#### Included

• Measurement of loop resistance and short circuit current without tripping

and stores it in memory even after

• High resolution measurements down

to 0.01 ohm for a high level of

powering down

#### TELARIS<sup>®</sup>ProInstall-200

#### Combined installation measurement equipment

#### as the Proinstall-100, also with:

- Testing of AC/DC-sensitive RCD/FI (type B)
- Memory for approx. 1000 readings
- Included:

1x ProInstall-100 or 200 3x test leads 3x crocodile clips

3x probes 1x probe with test button

1x protective holster (integrated)
1x hanging strap

1x carrying case 6x battery 1.5 V, IEC LR6

• Earth measurement (optionally with probes)

 RCD/FI analysis for testing all RCD/FI parameters

1x guick start guide 1x user manual on CD-ROM 1x Schuko input line cord

#### ProInstall-75-UK

#### Multifunction Installation Tester

#### **Functions**

Measurement of:

- Voltage & Frequency
- · Wiring polarity checker
- Insulation Resistance
- Continuity & Resistance
- Loop & Line Resistance
- Prospective Earth Fault Current (PEFC/IK)
- Prospective Short-Circuit current
- · RCD switching time, tripping level (ramp test), variable current
- Automatic RCD test sequence
- Test pulse current sensitive RCDs (Type A)
- Phase Sequence Indicator

#### **Product information**

- Compact, lightweight and comfortable
- Simple operation for fast, easy testing

#### Included:

1x ProInstall-75

1x Test lead set 1x ProInstall-TL-UK (LC38 AMP-MFT, mains test cord)

1x Alligator clips 1x Test probe

1x ProInstall-TL-KIT

(Remote test probe and probe tips)
1x ProInstall-CC (Soft case with carrying strap)

- Self-test
- Illuminated display

#### **Product highlights**

- Fast high current loop test (high current mode)
- Advanced loop testing prevents RCDs from tripping
- Variable RCD current mode for customized settings
- Zero adapter for easy test lead compensation
- PASS/FAIL indicator takes the guesswork out of RCD testing
- Insulation test voltages for a variety of applications
- Select voltage measurement quickly and easily between L-N, L-PE, and
- Dual display gives simultaneous readout of mains voltage and frequency
- 1x TL-75 (Fused test probe, red/blue/green with
- lantern spring, cap and tip cover) 1x Zero-Adapter
- 1x Statement of calibration
- 1x Quick reference guide
- 1x Carry strap for neck/waist
- 1x CD-ROM (User manual)





# CE CALE DOWN CALE DAY CAL

**DGC-1000 A**Article no. 2731217

#### Schuko-Test FI/RCD Article no. 3530534

# Control for FIRST

#### **DGC-1000 A**

#### Clamp meter for earth loop measurement

#### Functions

- Earth loop measurement range:  $0.025-1500 \Omega$
- Stray current measurement range 0.2...1000 mA
- Current measurement range: 0.2-30 A

#### **Product information**

- Measurement memory for 116 readings
- Recording interval 1...255 s
- Limit adjustment with alarm function
- Data hold function
- Jaw opening 23 mm
- Calibration loop included

#### **Product highlights**

- Earth measurement in closed earthing systems without setting of earth stakes
- TRMS current measurement

#### Technical specifications

LCD, 4 digit, 9999 digits
0.0251500 Ω
0.21.000/10.00/100.0/1000mA, 0.001/0.01/0.1/1 mA
0.2 A4.000 A/30 A, 0.001/0.01 A
1 255 s
<3
2
CAT III/300 V, CAT II/600 V
DIN VDE 0411/IEC 61010
approx. 23 mm
1x battery 9 V, IEC 6LR61
257 x 100 x 47 mm
approx. 640 g

Included: 1x DGC-1000A, 1x Battery 9 V, IEC LR6, 1x User manual, 1x Calibration loop, 1x Case

#### Earth loop measurement with a clamp meter

In the case of earthing systems with earths connected to each other that create a closed loop (e.g. the lightning protection system on a house), the earth resistance of every earth loop can be quickly and safely determined by means of a clamp meter for earth loop measurement (DGC-1000A).

The DGC-1000A clamp meter is a clamp with two current clamps in practical terms, which are installed within a housing. This clamp combines the two current clamps needed to perform the stakeless ground loop test in one compact and easy to use instrument.

A measurement current is induced in the earth loop with a current clamp, whilst the current running through the earth is measured with a second clamp in order to derive the resistance of the earth loop for the relevant earth.

#### Schuko-Test FI/RCD

#### Socket tester with RCD/FI tripping

#### **Functions**

- Fast and effective testing of 30 mA RCD/FI
- Testing for correct/incorrect wiring
- Connection test for individual conductors (L-N-PE)
- PE fault detection

#### **Product information**

- True PE fault detection via LCD and contact electrode
- Detection of wiring faults with classic protective earthing

#### **Product highlights**

 Clear and reliable indication of PE faults via LCD screen

#### Technical specifications

recrimed specimentons	
Nominal voltage	230 V AC ±10%
Frequency range	5060 Hz
RCD/FI test current	30 mA
RCD/FI test time	< 300 ms
Contact voltage with break-off at monitoring	2025 V AC/DC
PE fault detection response threshold	25 V AC
Safety cert.:	DIN VDE 0411/EN 61010/ IEC 61010
Measurement category	CAT II/300 V
Pollution degree	2
Power supply	from mains voltage
Dimensions	70 x 55x 86 mm
Weight	approx. 75 g

Included: 1x Schuko test FI/RCD, 1x User manual, \*Tester is available for countries with a Schuko plug only

#### Socket test

FI/RCD testers contain a display for testing the pin assignment specifically intended for testing an earthed socket. With all RCD/FI testers, the contact voltage is monitored and any PE faults are clearly displayed.

#### 93530

#### Megohmmeter

#### **Functions**

- Insulation test
- Voltage measurement
- Resistance and continuity measurements with beeper

#### **Product information**

 Built-in measurement memory for 9 readings

- Lock function enables continuous operation
- Zero adjustment with resistance measurement
- Backlit display
- Additional bar graph display

Technical specifications	
Display	LCD, 4 digit; 9999 digits
Display range/resolution	
Insulation resistance	$0999.9$ k $\Omega$ / $0.1$ k $\Omega$ , $9.999$ M $\Omega$ / $0.001$ M $\Omega$ , $99.99$ M $\Omega$ / $0.01$ M $\Omega$ , $999.9$ M $\Omega$ / $0.1$ M $\Omega$ ,
	9.999 GΩ/0.001 GΩ (at >250V)
Test voltage	100, 250, 500, 1000 V
Test current	>1 mA
Voltage AC/DC	0600 V / 1 V
Continuity measurement	$0999.9 \Omega/0.1 \Omega$ (sound at $<40 \Omega$ )
Resistance measurement	09999 Ω/1 Ω
Safety cert.:	DIN VDE 0411/EN 61010/IEC 61010,
	DIN VDE 0413, T. 2/EN 61557-2/IEC 61557-2
Measurement category	CAT III/600 V
Pollution degree	2
Power supply	6x battery 1.5 V, IEC LR6
Dimensions	200 x 95 x 48 mm
Weight	approx. 500 g

Included: 1x Insulation tester 93530, 2x Test leads, 1x Crocodile clip, 1x Probe, 1x Carrying case, 6x Battery 1.5 V, IEC LR6, 1x User manual





KMP7030 Article no. 3454416

#### Important to know about insulation measurement

One of the most important measurements of an electrical system is insulation measurement. It is the only measurement for fire and touch protection, amongst others. If electrical cables are energised then residual currents flow, which generate heat or electrolytic material migrations. If a limited residual current flows between two cables due to an insulation fault, then the current can lead to warming and in extreme cases to fire.

These residual currents are generally so small that preset protection systems such as RCD/ FI protection systems or fuses do not detect them. The DIN VDE allows for a residual current with a heat output of 1mA/kW. The values that are measured in practice on a new unit are, however, considerably lower.

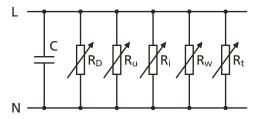
Insulation measurement is a measurement that does not require a mains connection and can therefore take place early, before, for example, a faulty wire is plastered in and where fault detection or elimination can be very demanding. If the readings are logged, then if a fault appears later on, it can be shown whether it was caused by other tradespeople involved with construction.

Insulation resistance is a complex form of resistance, comprising several different individual resistances and capacitances.

The inflow from capacitor C is switched off when the measurement is carried out with direct current or direct voltage. In order to obtain a meaningful, comparable reading, the test voltages and the test currents

are established so that the inflow of the current or voltagedependent resistances (Ru, Ri) remain identical.

The resistance (RD) of the dielectric is affected by moisture and the time-dependent resistance (Rt) is affected by the aging of the materials used (Rw), which can lead to different results for readings at different times. Measurement of the insulation resistance must be carried out between every active conductor and earth upon initial testing.



Replacement circuit diagram of the insulation resistor from L to N







#### Portable Appliance Testers

	GT-400	GT-650	GT-900
Display range / resolution	Graphic LCD	Graphical LCD, 128x 64 pixels	Graphical LCD, 128x 64 pixels
Protective Earth Resistance	0.05 2Ω / 0.01 Ω	0.00 11.00 Ω / 0.01 Ω	0.00 11.00 Ω / 0.01 Ω
Test current / voltage	$> \pm 200$ mA DC $/ > 4$ V	> 200 mA / ca. 6 V AC; > 5 A / ca. 6 V AC	> 200 mA / ca. 6 V AC; > 5 A / ca. 6 V AC
Insulation resistance	0.1 9.999 ΜΩ / 0.001 ΜΩ 10.00 20.00 ΜΩ / 0.01 ΜΩ	Protection class I+II: $0.00 \dots 9.99 \ M\Omega / 0.01 \ M\Omega$ $10.0 \dots 49.9 \ M\Omega / 0.1 \ M\Omega$ $50 \dots 100 \ M\Omega / 1 \ M\Omega$ Protection class III: $0.00 \dots 9.99 \ M\Omega / 0.01 \ M\Omega$ $10.0 \dots 20.0 \ M\Omega / 0.1 \ M\Omega$	Protection class I+II: 0.00 9.99 ΜΩ / 0.01 ΜΩ 10.0 49.9 ΜΩ / 0.1 ΜΩ 50 100 ΜΩ / 1 ΜΩ Protection class III: 0.00 9.99 ΜΩ / 0.01 ΜΩ 10.0 20.0 ΜΩ / 0.1 ΜΩ
Test current / voltage	> 500 V DC / >1 mA	500 V DC / > 1 mA	500 V DC / > 1 mA / 250 V DC / > 1 mA
Substitute leakage current	0.120 mA	0,0220,00 mA / 0.01mA	0,0220,00 mA / 0.01mA
Test current / voltage	Approximately 32 V AC	approx. 45 V AC / ca. 300 mA	approx. 45 V AC / ca. 300 mA
Earth leakage current (IPE)	-	0,0520,00 mA / 0.01 mA	0,0520,00 mA / 0.01 mA
Touch leakage current (ITC)	-	0.0120.00 mA / 0.01mA	0.0120.00 mA / 0.01mA
Functional test (P/IPE) Apparent Power	-	0.0 99.9 VA / 0.1 VA 100 999 VA / 1 VA 1.00 5.06 kVA / 10 VA	0.0 99.9 VA / 0.1 VA 100 999 VA / 1 VA 1.00 5.06 kVA / 10 VA
Functional test (P/IPE) Active Power	-	0.0 99.9 W / 0.1 W 100 999 W / 1 W 1.00 5.06 kW / 10 W	0.0 99.9 W / 0.1 W 100 999 W / 1 W 1.00 5.06 kW / 10 W
Load voltage	-	195253 V / 1 V	195253 V / 1 V
Load current	-	0.00 0.99 A / 0.01 A 1.0 20.0 A / 0.1 A	0.00 0.99 A / 0.01 A 1.0 20.0 A / 0.1 A
Power factor	_	0.001.00	0.001.00
Voltage measurement SELV/PELV	_	10,0100,0 V / 0.1 V	10,0100,0 V / 0.1 V
External current clamp input	-	-	0.5 20.0mA / 0.1 mA 0.2 60.0 A / 0.1A
Test function PRCD	-	-	only with optional PRCD adapter
PRCD types	-	-	2-pole, 3-pole, type S, type S+,type K, type K-
RCD test (10 and 30 mA)	-	-	Trip time (test with alternating current and pulsating direct current) and trip current (ramp) at I∆N
Measurement storage	-	approx. 500 measurement results	approx. 5,000 measurement results
Database storage	-	approx. 1,000 appliance codes	approx. 10,000 appliance codes
Interface	-	1x for PC; 2x HID compatible for e.g. keyboard, barcode scanner or memory	1x for PC; 2x HID compatible for e.g. keyboard, barcode scanner or memory
Manufactured according to	DIN VDE 0404 DIN VDE 0411/ EN 61010/IEC 61010 DIN VDE 0413/ EN 61557/IEC 61557	DIN VDE 0411-1 / EN 61010-1, DIN VDE 0413 / EN 61557 parts 1, 2, 4, 10, 16	DIN VDE 0411-1 / EN 61010-1, DIN VDE 0413 / EN 61557 parts 1, 2, 4, 10, 16
Measurement category	CAT II/300 V	CAT II/300 V	CAT II/300 V
IP Rating	IP 40	IP 40	IP 40
Power supply	6x 1.5 V Batteries (IEC LR6 (AA) (or 6x 1.2 V NiMH rechargeable batteries)	230 V +10%/-15% 50 Hz	230 V +10%/-15% 50 Hz
Mains connection	_	D: Schuko (CEE 7/7), CH: Type 12	D: Schuko (CEE 7/7), CH: Type 12
Test / mains socket	-	D: Schuko (CEE 7/3), CH: Type 23	D: Schuko (CEE 7/3), CH: Type 23
Dimensions	265 x 110 x 50 mm	300 x 250 x 130 mm	300 x 250 x 130 mm
Weight	700 g	4.5 kg	4.5 kg

#### MT204-S

#### Machine tester

#### **Features**

- PE resistance measurement
- Insulation resistance measurement
- Residual voltage measurement
- High voltage test

#### **Product information**

- Data memory for approx. 2000 measurement results
- Integrated interface (USB 2.0) for transfer of measurement results to PC
- Separate interface (USB 2.0) for connection of USB barcode reader, USB keyboard or USB memory stick
- Graphic LC-Display for measurement values, limit values and test parameters
- Connection diagrams and limit values in the instrument cover

- One pair of sockets and test leads only for all measurement functions
- Loop / mains impedance measurement Compensation of test lead's resistance for earth bond resistance and loop impedance measurement
  - High-voltage test can be locked by using the protection key switch
  - · Visual and acoustic limit value display

#### **Product highlights**

- Earth bond resistance measurement with 10 A AC or 0.2 A AC
- Loop / mains impedance measurement up to 440V
- Display of prospective short circuit current
- Insulation resistance measurement with 250 V to 500 V test voltage (adjustable)

- Residual voltage measurement Display of the discharge voltage / discharge
- Integrated high-voltage test (can be switched off by means of a key switch)
- Easy operation using the rotary switch and the START/STOP button



MT204-S Article no. 3454632

Technical specifications	
Display	Graphic LC-Display 128x 64 Dots
PE (earth bond) resistance (10 A)	0,0020,00 0 / 0,01 0
Max. Test current / voltage	>10 A / >4 V AC
PE (earth bond) resistance (0,2 A)	0,004,00
Test current / voltage	>0,2 A / >4 V AC
Loop impedance	0,0020,00 0 / 0,01 0
Test current	20 A (10 ms) at 230V
Voltage range	190440 V
Short circuit current	11,5 A23 kA
insulation resistance	0,00100,0 MO 0,01 MO, 0,1 MO
Test voltage / current	250 V500 V
residual voltage	
Voltage measuring range	0,0400 V AC/DC
Measuring time	1s, 5s
Time range	0300s
High voltage test	
Test voltage / current	1000 V / 50 mA AC
Tripping current	5, 10, 25, 50 mA (adjustable)
General	
Memory	up to 2000 measured values
Interfaces (USB 2.0)	PC, Barcodescanner und Tastatur
Limit value indication	visually and acoustically
Safety Cert.	DIN VDE 0411-1, IEC/EN 61010-1, DIN VDE 0413/EN 61557 Teile 2, 3, 4
Measurement category	CAT IV/300 V, CAT III/600V
Protection category	IP 40
Mains power supply	230 V ?10%, 50 Hz
Size (W x L x H)	340 x 310 x 170 mm
Weight	ca. 7 kg

Included: 1x Machinery-Tester MT 204-S, 1x HV function lock key, 1x Mains cord (Schuko), 1x Mains cord (Swiss), 1x Mains cord (UK), 2x Safety test leads 2 m, 2x Safety test lead extensions 10 m, 2x Alligator Clips, 1x USB interface cable, 1x CD with USB drivers and instruction manual, 1x User manual

#### New Beha-Amprobe Machine Tester Coming Soon.



GT-400

#### **Recommended Accessories** See accessory section for more details.



Measurement adapter Schuko/ Schuko 1233

Article no. 2145900

Test report 0701-0702 1279 Article no. 3313435

#### **GT-400**

#### Portable equipment tester in accordance with UK code of practice & DIN VDE 0701-0702

- Measurement of protective earth resistance
- Insulation resistance measurement
- Measurement of protective earth and touch current (alternative stray current procedure)

#### **Product information**

- · Automatic test sequence for equipment in protection class I, protection class II/III
- Automatic testing of extension cables, socket strips, and IEC cables
- · Clear display via symbols in case of non-adherence to threshold values
- Preset threshold values in accordance with UK Code of Practice DIN VDE 0701-0702

#### Product highlights

- Battery-operated ideal for mobile use
- Suitable for trained people due to the Pass/Fail descriptive function

Included: 1x Equipment tester GT-400, 1x Measurement accessories set with safety test line, Safety crocodile clip and safety probe, 6x Battery type AA, 1x IEC power cable 0.5m, 1x Carry case, 1x User manual

#### GT-400 Ordering Information:

O1-100 Oldering Information.					
Model	Article no.				
GT-400-D	4380998				
GT-400-CH	4381001				
GT-400-UK	4381012				





#### Appliance tester for testing in accordance with DIN VDE 0701-0702 and DGUV regulation 3 (BGV A3)

#### **Features**

- Visual inspection
- Protective earth bond test (RPE)
- Insulation resistance test (RINS)
- Substitute leakage current test (ISUB)
- Earth Leakage Current Test
- Touch Leakage Current Test (ITC)
- Functional test (P/IPE) Apparent power (VA), active power (P), line voltage at the tested appliance (U), load current (IPE), power factor ( $\cos \phi$ )

#### **Product information**

- Convenient software "es control professional" is available with database and logging capability (optional)
- Three storage levels (customer, location, department)
- Easy operation via rotary switch and START/STOP button
- Automatic start and storage function for protective earth bond resistance test allows two-handed measurements on hard-to-reach measuring objects

#### **Product highlights**

• Easy operation via rotary switch and START/STOP button

• Simple to use due to a rotary switch

and start button

- · Fast safety and functional testing of IEC cord
- Suitable for technically trained persons, clear ok/not ok indication
- Connection for barcode scanners

Included: 1x Portable Appliance Tester GT-650 with permanently connected, mains cable and with removable lid, 1x Test lead, 1.5 m, 600 V CAT IV, black, 1x Alligator clip 32 A, 1000 V, CAT III, black, 1x Test tip 4 mm, 36 A, 1000 V CAT II, black, 1x USB interface cable, 1x CD with USB drivers and user manuals, 1x User's manual in English and German, 1x Accessory bag (fixed to the housing's lid)

G1-650 Or	dering information:	
Model	Article no.	
GT-650-D	4866881	
(D version for all	l countries using the Schuko plug)	
GT-650-CH	5017935	
(CH version only	for Switzerland)	





GT-650-D

#### GT-900

# Appliance tester for testing in accordance with DIN VDE 0701-0702 and DGUV regulation 3 (BGV A3)

#### Feature

- Visual inspection
- Protective earth bond test (RPE)
- Insulation resistance test (RINS)
- Substitute leakage current test (ISUB)
- Earth Leakage Current Test
- Touch Leakage Current Test (ITC)

(IPE), power factor ( $\cos \varphi$ )

- Functional test (P/IPE) Apparent power (VA), active power (P), line voltage at the tested appliance (U), load current
- Current measurement via external current clamp
- Automatic testing of portable RCDs (PRCD, PRCD-S, PRCD-S +, PRCD-K)

#### **Product information**

- Convenient software "es control professional" is available with database and logging capability (optional)
- Measurement storage for approx.
   5,000 test results/appliances
- Three storage levels (customer, location, department)
- Automatic start and storage function for protective earth bond resistance test allows two-handed measurements on hard-to-reach measuring objects

#### **Product highlights**

- Easy operation via rotary switch and START/STOP button
- Database in the tester
- Fast safety and functional testing of IEC cord
- Suitable for technically trained persons, clear ok/not ok indication
- Connection for barcode scanners

Included: 1x Portable Appliance Tester GT-900 with permanently connected, mains cable and with removable lid, 1x PRCD-Adapter, 1x PRCD test finger tip (extension), 1x Test lead, 1.5 m, 600 V CAT IV, black, 1x Alligator clip 32 A, 1000 V, CAT III, black, 1x Test tip 4 mm, 36 A, 1000 V CAT II, black, 1x USB interface cable, 1x CD with USB drivers and user's manuals, 1x User's manual in English and German, 1x Accessory bag (fixed to the housing's lid)

#### GT-900 Ordering Information:

í	<u> </u>	
	Model	Article no.
	GT-900-D	4866896
	(D version for all countries	using the Schuko plug)
	GT-900-CH	4866908
	(CH version only for Switze	rland)









#### Earth measurement set perfect for:

• e.g. Telaris ProInstall-200

#### Included:

1x carrying case

2x ground spikes (235 x Ø 10 mm)

1x test lead, red, 25 m

1x test lead, blue, 25 m

1x test lead, green, 5 m

3x test lead winders

3x crocodile clips

#### Earth measurement set

Article no. 4388671



#### AC current clamp adapter

- Current measurement from approx. 1 mA to 1000 A
- Jaw opening 48 mm
- Current output, output signal: 1 mA corresponds to 1 A test current
- Fixed test lead
- · No batteries required

#### AC current clamp adapter

Article no. 3313401



DAA-16



DAA-32

#### DAA-16, DAA-32

#### Three-phase adapter 16 A or 32 A

- Three-phase current plug CEE 16 A or CEE 32 A
  Connections via five separate 4 mm sockets
- for L1, L2, L3, N and PE
- For quick connection of test devices to three-phase sockets when testing according to DIN VDE 0100
- \*with Schuko plug

#### DAA-16

Article no. 2743806

DAA-32

Article no. 2743850



#### **Barcode Scanner**

For reading in barcoded sample numbers\*

Model BC-GT07XX for:

• for equipment tester GT-0751

#### Model BC-1250G for:

- for machine tester MT 204-S (Model 9085)
- for equipment tester GT-650 and GT-900

Barcode Scanner

Article no. 4377939

#### **Barcode sticker**

- Abrasion-resistant numbered barcodes for identifying samples
- Consecutive numbering
  Barcoded (code 39) and clear text
- Size 54 x 15 mm
- For 0701/0702 test equipment
- 250 pcs. on roll

\*for reading in code 39, code 128, code 2/5, EAN, **UPC** barcodes

Barcode sticker

Article no. 2389952

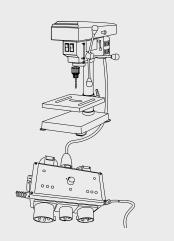


#### VLP 5 Three-phase current extension test adapter

- For testing portable equipment and extension cables with the plugs and couplings:
- 16 A CEE 3-pole
- 16 A CEE 5-pole
- 32 A CEE 5-pole
- IEC power cable and Schuko
- Measurement of protective earth resistance, insulation resistance, function of active conductors (L-N), and rotary field
- Suitable for all test equipment with an earthed socket and test probe

VLP 5 Model: 1343

Article no. 3313514





#### KBGE-MT204S USB keyboard

- For convenient entry of client/sample information
- For equipment tester GT-650 and GT-900
- For machine tester MT204-S

KBGE-MT204S

Article no. 3504388



#### Measurement adapter for stray current/leakage current measurement

- Measurement adapter for measuring differential current, protective earth current, load current, and neutral conductor current in portable consumers via a leakage current clamp
- All conductors are individually brought out



#### Wiring diagram 1233

Application example for a leakage test under mains voltage (leakage current) e.g. with ALC-110-EUR CHB5 or CHB1



#### Wiring diagram 1235/1236

Application example for a leakage test under mains voltage (leakage current) e.g. with ALC-110-EUR CHB5 or CHB1



#### Three-phase adapter 1142

- For testing portable equipment with the plugs: 16 A CEE 3-pole, 16 A CEE 5-pole, and 32 A CEE 5-pole
  Measurement of protective earth resistance and
- insulation resistance
- Suitable for all test equipment with an earthed socket and test probe

Article no. 3313394



#### PAT-BRUSH Brush probe

- Measurement of protective earth resistance and touch current
- Enables stray current measurement on moving or rotating parts
- Reduces transition resistance due to multiple contacting
- Simplifies measurement on refined or oxidized
- Max. test current 0.2 A
- 4 mm plug-in technology
- Total length 190 mm, brush dimensions 60 mm x Æ20 mm
- With protective packaging for safe storage
- Can be used for all testing equipment

PAT-BRUSH

Article no. 4151667



#### Three-phase adapter 1240/1241

- For testing portal devices with three-phase current plug 16 A CEE 5-pole (1240) or 32 A CEE 5-pole (1241)
- Measurement of protective earth resistance and insulation resistance
- Suitable for all test equipment with an earthed socket

1240

Article no. 3313412

Article no. 3313420







#### PA-1 Adapter for 3-pole plug

- Measurement of protective earth resistance and insulation
- For C5 power cable types (DIN VDE 0623, IEC/EN60320)

PA-1

Article no. 4362289



#### CHB1 Leakage current clamp adapter (AC)

#### **Functions**

• Clamp adapter for measuring leakage currents in conjunction with a multimeter

A·AMPROBE<sup>®</sup>

 Stray current measurement in connection with GT-900

#### **Product information**

- Current output, output signal: 1 mA corresponds to 1 A test current
- Jaw opening 30 mm
- Fixed test leads
- No batteries required
- Not suitable for earth measurements

#### **Technical specifications**

Ranges	
Current AC	1mA50 A
Basic accuracy	± (6 % + 0.5 mA)
Output current	1 mA/A
Frequency range	40 Hz10 kHz
Protection class	IP 30
Pollution degree	2
Measurement category	CAT II/600 V
Safety cert.:	DIN VDE 0411/
	EN 61010/IEC 61010
Jaw opening	approx. 30 mm
Length of connection cable	approx. 1.5 m
Dimensions	approx. 140 x 45 x 20 mm
Weight	approx. 75 g

CHB1 1311

Article no. 2390055







# Socket-Check Adapters

#### Ensure safe and reliable testing

The Socket-Check adapters ensure safe, reliable testing with optimal contact to outlet. This adapter can be used in conjunction with a wide variety of test equipment that uses test leads terminating in 4mm safety connectors.

#### **Features**

- Ease of use
- Optimal and safe contact to outlets
- Low contact resistance, important for earth bond measurement (UK: R1 and R2 testing)
- Designed in a small robust housing
- 4 mm safety socket
- Maintenance free

#### **Applications**

Socket-check adapters are perfect to be used with the following products:

- Installation Testers
- Portable Appliance Testers (PAT)
- Wire Tracers

#### **Specifications**

The Socket-Check Adapters are available with Schuko and UK plua.

The Schuko version is available in two versions, the SCT version is: one with a socket for L, N and PE, and a second one with only PE (protective earth)

#### Ordering Information:

	<del></del>	
Model	Article no.	
ADPTR-PE-EUR	4854900	
ADPTR-SCT-EUR	4854899	
ADPTR-SCT-UK	4854820	
ADPTR-SCT-CH	4969385	
ADPT-PF-CH	/1969397	



#### Light-Check Adapters

#### Ensure safe and reliable testing

The Light-Check adapters are made to ensure your safety during testing light points. They can be used in conjunction with a wide variety of test equipment that uses test leads terminating in 4 mm safety connectors. The adapters enable a range of tests to be conducted on light fitting terminals eliminating the need to hold test probes in place and ensure a good reliable and safe contact.

#### **Features**

- Ease of use, one-hand operation
- Optimal and safe contact to light points
- Low contact resistance (important for line resistance measurement)
- Additional safety barrier (finger guard)
- Designed in a small robust housing
- 4 mm safety socket • Maintenance free

#### **Applications**

Light-Check adapters are perfect to be used with the following products:

- Installation Testers
- Insulation Testers
- Wire Tracers
- Voltage Measurement and Monitoring (PQ)

#### Specifications

The Light-Check adapters are available for different fittings: E27, B22, E14, B15, GU10

#### Ordering Information

Ordering information.						
Model	Article no.	Article no. (5-Pack Display Box)				
ADPTR-E14-EUR	4854864	5017128				
ADPTR-E27-EUR	4854847	5017137				
ADPTR-B15-EUR	4854873	5017104				
ADPTR-B22-EUR	4854858	5017119				
ADPTR-GU10-EUR	4854886	5017143				
ADPTR-KIT1-EUR	4854835	(contains all 5 adapters in a soft carrying bag)				





# Software packages for logging data

Test reports act as evidence of proper performance of the work carried out, and provide the client and the company that has been commissioned clear documentation regarding safety.

Software packages from Beha-Amprobe provide a convenient, practical solution in order to transfer data from measurement and testing equipment by quickly and easily creating a test report and archiving the measurement data.

Compared to manual creation this results in time being saved, particularly with repeat testing services and verifications.

#### Test equipment for use with software

Software						
	es control professional 0100	es control professional 0701-0702/0113	es control professional Complete	Beha-Amprobe Downloader Software		
Test equipment:	Model 1312	Model 1314	Model 1316	Model DL-SW-KIT		
PROINSTALL-100	•	-	•	•		
PROINSTALL-200	•	=	•	•		
GT-650	-	•	•	-		
GT-900	=	•	•	-		
MT 204-S	-	•	•	-		
	Article no. 2390062	Article no. 2390081	Article no. 2390735	Article no. 4597359		

#### **DL-SW-KIT**

#### **Downloader Software**

#### **Key Features**

- Software for logging measurement data in accordance with DIN VDE 0100 and 0105. Downloads data fron supported meters:
- ProInstall-100
- ProInstall-200
- Displays downloaded data using form and table view for easy analysis
- Allows saving, retrieving and printing of the downloaded data
- Provides standard form templates to quickly log results with professional quality
- Exports data to other programs such as Microsoft Excel using the CVS format
- 0100 and 0105. Downloads data from supported meters:

   Provides utility to clear memory and to change meter setup
  - Opto-isolated USB interface for user and computer safety
  - Preview of the stored measurement values on the PC using Virtual Meter function

#### **System requirements**

- Operating System:
- Windows 7, 8 or 10.
- Minimum recommended hardware: Pentium class microprocessor, 32 MB RAM, and up to 70 MB hard disk space (100 MB to install)



#### es control professional Software Packages

- Convenient, upgradeable software for logging measurement data in accordance with DIN VDE 0100, 0701-0702, 0751, and 0113
- Access authorization/user administration for four different user groups
- Comparison and update of different es control databases (replication)
- Interface to external barcode printing programs (Brother® P-Touch), allowing the sample number and test code to be printed as a barcode
- Result evaluation for tests in accordance with DIN VDE 0100 for quick evaluation of overall test
- Ideal software for all providers of repeat testing services according to BetrSichV (German Ordinance on Industrial Health and Safety) or in the field of facility management
- Interface cable not included in delivery (optional
- Software in English/German language version available.







	es control professional 0100	es control professional 0701-0702/0113	es control professional Complete
DIN VDE 0100, 0105	•	-	•
DIN VDE 0701-0702, 0751-1/EN 62353 and 0113	_	•	•
Clear and simple hierarchy	•	•	•
Data tree (client, unit, test, distributor, and circuit)	•		•
<b>Data tree</b> (customer, location, department, sample, and test)	-	•	•
Transfer of measured values from tester to PC	•	•	•
<b>Automatic creation</b> of new devices under test that are not yet in the database. Tests can be printed out quickly and easily.	•	•	•
<b>Results</b> of a standard test report for electrical systems	•	-	•
<b>Results</b> of a test series can be printed out in a list or individual logs for each DUT	-	•	•
Lists can be exported in text and Excel format	•	•	•
<b>Assistant</b> for reading in data and printing out reports	•		•
<b>Access authorization/</b> user administration for four different user groups	•	•	•
<b>Comparison and update</b> of different es control databases (replication)	•	•	•
<b>Result evaluation</b> for tests in accordance with DIN VDE 0100 for quick evaluation of overall test	•	-	•
Data export to external barcode printing programs (Brother® P-Touch), allowing the sample number and test code to be printed as a barcode	-	•	•

Included: 1x software on CD-ROM (es control professional 0100, es control professional 0701-0702/0113, or es control professional Complete) 1x user manual



#### Recommended configuration for ex control software

tor es cont	roi sottware			
Operating system	n Win XP, Win 7, Win 8/8.1,			
	Win 10			
Processor	Pentium IV or similar			
	processor*			
RAM	256 MB or higher			
Screen	VGA monitor or monitor			
	with higher resolution;			
	Super VGA recommended:			
	Resolution 800 x 600 or			
	greater available			
Memory	400 MB			
Drive	CD-ROM			
Interface	RS232; 9-pole or USB			
	(dependent on tester)			
* \\/imd=\\\\ 7 \ Q = \\\\ d \ 10 = \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				

\* Windows 7, 8 and 10 are registered trademarks of the Microsoft Corporation



Accessories: USB adapter including driver Model 1217 Article no. 2389965





#### **Infrared** thermometers

















						-		•
	IRC-110-EUR	IRC-120-EUR	IR-710-EUR	IR-720-EUR	IR-730-EUR	IR-750-EUR	IR608A	IR-450-EUR
Temperature range	-10 °C to 500 °C	-10 °C to 500 °C	-18°C to 380°C	-32°C to 1050°C	-32°C to 1250°C	-50°C to 1550°C	-18 to 400 °C	-30°C to 500°C
Accuracy	± 2 °C or ± 2%	± 2 °C or ± 2%	±2%	±1.8%	±1.8%	±1.8%	±2% or ±2°C	±1.5% or ±1.5°C
Distance to spot	20:1	20:1	10:1	20:1	30:1	50:1	8:1	8:1
Emissivity	Adjustable from 0.10 to 1.00 by 0.01	Digitally adjustable from 0.10 to 1.00 by 0.01	0.95	Adjustable from 0.10 to 1.00	Adjustable from 0.10 to 1.00	Adjustable from 0.10 to 1.00	0.95 (pre-set)	0.95 (pre-set)
Visual image with infrared heat map overlay	Five blending modes (0%, 25%, 50%, 75% and 100%) Fluke Patented Technology	Five blending modes (0%, 25%, 50%, 75% and 100%) Fluke Patented Technology	-	-	-	-	-	-
Display	1.77 in Color TFT	1.77 in Color TFT	LCD, 4 digit	LCD, 4 digit	LCD, 4 digit	LCD, 4 digit	LCD, 4 digit	LCD, 3 digit
Field of view	33° × 33°	33° × 33°	_	-	_	_	-	-
Image palletes	Grayscale (white hot), Hot Iron and Rainbow	Grayscale (white hot), Hot Iron and Rainbow	-	-	_	-	-	-
Center point marker	•	•	-	-	-	-	-	-
Hot and cold marker	•	•	_	_	_	_	_	-
Laser pointer	-	•	•	•	•	•	-	•
Data recording	_	•	_	-	_	•	_	-
Auto / display / data hold	•	•	Display hold: 8s	Display hold: 8s	Display hold: 8s	Display hold: 8s	•	Display hold: 10s
Power supply	3x 1.5 V AA IEC LR6 alkaline batteries	3x 1.5 V AA IEC LR6 alkaline batteries	9V 6F22 alkaline battery or equivalent	9V 6F22 alkaline battery or equivalent	9V 6F22 alkaline battery or equivalent	9V 6F22 alkaline battery or by power adaptor (output DC 6V/450mA)	9V Alkaline or NiCd battery	1x battery 1.5 V, IEC LR03, AAA
Battery life	8 hours	8 hours	10 hours with laser and backlight on 30 hours with laser and backlight off	and backlight on	10 hours with laser and backlight on 30 hours with laser and backlight off	10 hours with laser and backlight on 30 hours with laser and backlight off	12 hours	-
Auto power off	•	•	•	•	•	•	•	•
Low battery indication	•	•	•	•	•	•	•	•
Size (H x W x L)	185 x 54x 104 mm	185 x 54 x 104 mm	153 x 108 x 40 mm	169 x 138 x 53 mm	169 x 138 x 53 mm	183 x 147 x 57 mm	152 x 101 x 38 mm	100 x 20 x 29 mm
Weight	260 g	290 g	180 g	290 g	290 g	345 g	227 g	50 g
Flashlight	-	4 LEDs	-	_	_	-	-	•
UV light	-	5 blue LEDs	-	-	-	-	-	-



IRC-110-EUR
Article no. 4909794

#### IRC-110-EUR

# Infrared Camera with point-and-shoot thermal imaging technology for the professional

#### **Functions**

• Non-contact temperature measurement

#### **Product information**

- Infrared heat map image blending
- Three selectable color palettes (grey scale, hot iron and rainbow)
- Center-point temperature measurement
- Distance to Spot ratio 20:1
- Adjustable emissivity from 0.10 to 1.00
- Auto off function
- Selectable °C and °F
- Intuitive joystick navigation
- Hot and cold markers

#### **Product highlights**

 Handy and compact "pistol grip" design

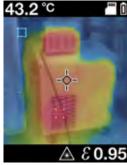
#### IRC-120-EUR

# Infrared Camera with SD card to capture and download thermal images

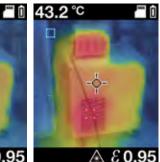
#### As IRC-110-EUR, but with:

- Capture and download thermal images with SD card
- Laser sighting helps pinpoints spot of temperature measurement
- Built-in flashlight illuminates dark areas
- UV light identifies leaks

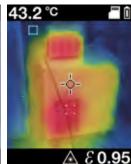
#### Infrared heat map image blending



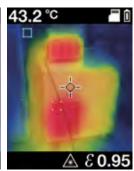
Blending Mode 25%



Blending Mode 50%



Blending Mode 75%



Blending Mode 100%





#### **IR608A**

#### Infrared thermometer

• Non-contact temperature measurement

#### **Product information**

- Switchable between °C and °F measurement
- Integrated measurement memory (data hold)
- Illuminated display
- Distance to spot size ratio: 8:1
- Auto Power Off

#### **Product highlights**

- Laser-based targeting
- Handy and compact design in pistol format



A-AMPROBE®



#### Included: 1x IR608A, 1x Battery 9 V, IEC 6LR61, 1x User manual

#### **IR-450-EUR** Mini infra-red thermometer with flashlight

- IR temperature measurement
- LED flashlight

#### **Product information**

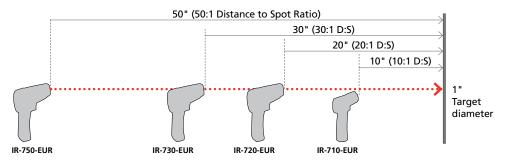
- Ratio of spot size to distance 8:1
  °C and °F selectable
- Temperature is displayed for 10 seconds
- With pocket clip

#### **Product highlights**

- With laser pointer
- Small and compact

Included: 1x IR-450-EUR, 1x Battery 1.5 V, IEC LR03, AAA, 1x User manual

#### IR-700-EUR Series Infrared Thermometers



#### **IR-710-EUR**

#### Infrared Thermometer 10:1

• Non-contact temperature measurement

#### **Product information**

• Temperature measurement from -18° to 380°C

- Integrated measurement memory (data hold)
- MIN/MAX measurement memory
- Illuminated display
- Distance to spot size ratio: 10:1
- Very fast response time

#### **Product highlights**

- Laser-based targeting
- Handy and compact "pistol grip" design

#### **IR-720-EUR**

#### Infrared Thermometer 20:1

#### As IR-710-EUR, but with:

- Temperature measurement from -32° to 1050°C
- Distance to spot size ratio: 20:1
- Continuously adjustable emissivity
- Integrated thread for tripod
- Measuring the average temperature

#### **IR-730-EUR**

#### Infrared Thermometer 30:1

#### As IR-720-EUR, but with:

• Temperature measurement from -32° • Distance to spot size ratio: 30:1 to 1250°C

#### **IR-750-EUR**

#### Infrared Thermometer 50:1

#### As IR-730-EUR, but with:

- Temperature measurement from -50° to 1550°C
- Distance to spot size ratio: 50:1
- Adjustable alarm function
- Data memory up to 99 readings
- USB interface for transferring stored measurements to a PC
- Input for K-type test probe

#### Includes:

1x IR-710-EUR, IR-720-EUR, IR-730-EUR, IR-750-EUR 1x Battery 9 V, IEC 6LR61 1x Carry case (only for IR-720-EUR, IR-730-EUR, IR-750-EUR) 1x User manual

1x USB cable (only IR-750-EUR)

- 1x Software on CD (only IR-750-EUR)
- 1x Hard carrying case (only IR-750-EUR)
- 1x K-type wire probe (only IR-750-EUR)









TMD-50 Article no. 3730150



TMD-53 Article no. 3730085



TMD-56 Article no. 3730138

#### Recommended **Accessories**

See accessory section for more details.



Carrying case Model 1150 Article no. 2145755



Heat-conducting paste up to 250 °C (30 g) Model 1032 Article no. 2145689

#### **TMD-50**

#### K-type digital thermometer with dual inputs

- Functions (data hold)
   Temperature measurement with inputs MIN/MAX and relative value for two probes
- Measurement of temperature difference
- Product information
- Input for two type K temperature probes
- Switchable between °C and °F measurement
- Integrated measurement memory

- measurement
- Measuring the average temperature
- Illuminated display
- Auto Power Off

#### **Product highlights**

- T1-T2 (temperature difference)
- Shock-proof and impact-resistant thanks to standard protective holster

#### **TMD-53**

#### K-type / J-type digital thermometer with dual input

- As TMD-50, but with:
   Connections for two temperature probes (for types K and J)
- Alarm function (optical and acoustic)

 Clear multi-functional display for T1, T2 and T1-T2 (temperature difference)

Included with TMD-50/TMD-53: 1x TMD-50 or TMD-53, 2x K-type wire probe, 4x Battery 1.5 V, IEC R03, AAA, 1x User manual

#### **TMD-56**

#### Digital thermometer with data logger and USB connection

#### As TMD-53, but with:

- Inputs for two temperature probes (of types K, J, T, R/S, N and E)
- Built-in real-time clock and date
- Clear multi-functional display for date, time, T1, T2 and T1-T2 (temperature difference)
- USB interface
- Evaluation software included
- Data logger for 16,000 measurement values (various intervals can be selected)

#### **Technical specifications**

	TMD-50	TMD-53	TMD-56
Display	LCD, 31/2 digit, 1999 digits	LCD, 5 digit, 99999 digits	LCD, 4½ digit, 19999 digits
Measurement ra	nge		
	Type K -180+1350° C (-292+2462° F)	Type K -180+1350° C (-292+2462° F)	Type K -180+1350° C (-292+2462° F)
Basic accuracy	±(0.1% v.M.+1°C) at -60°C to 1350°C	± (0.05% rdg. + 0.3°C) at -50°C to 1350°C	± (0.05% rdg. + 0.3°C) at -50°C to 1350°C
	±(0.1% v.M.+2°C) at -60°C to 200°C	± (0.05% rdg. + 0.7°C) at -50°C to -200°C	± (0.05% rdg. + 0.7°C) at -50°C to -210°C
	±(0.1% v.M.+2°F) at -76°F to 1999°F	± (0.05% rdg. + 0.6°F) at -58°F to 2498°F	± (0.05% rdg. + 0.6°F) at -58°F to 2501°F
	±(0.1% v.M.+4°F) at -76°F to -328°F	± (0.05% rdg. + 1.4°F) at -58°F to -328°F	± (0.05% rdg. + 1.4°F) at -58°F to -346°F
Resolution	0.1 °C/°F	0.1 °C/°F	0.1 °C/°F
Power supply	4x battery 1.5 V, IEC R03, AAA	4x battery 1.5 V, IEC R03, AAA	4x battery 1.5 V, IEC R03, AAA
Dimensions	approx. 160 x 85x 30 mm	approx. 160 x 85x 30 mm	approx. 160 x 85x 30 mm
Weight	approx. 280 g	approx. 280 g	approx. 360 g

Included with TMD-56: 1x TMD-56, 2x K-type wire probe, 1x USB cable, 1x Software CD, 4x Battery 1.5 V, IEC R03, AAA, 1x User manual



#### TPP1-C1

#### Mini pocket thermometer with immersion probe

• Temperature measurement with integrated NTC sensor

- Compact design
- With protective sleeve/holder (TPP1-C1 only)

#### **Product information**

- Immersion probe
- Measurement memory (data hold)

# **△** AMPROBE

TPP1-C1 Article no. 2826634

#### TPP2-C1

#### Mini pocket thermometer with surface probe

#### As TPP2-C1, but with:

• Surface probe without protective sleeve

#### **Technical specifications**

Display	LCD, 3 1/2 digit	
Measurement range	-50 to +250°C	
Range	Resolution	Accuracy
-5020° C	1° C	±3° C
-19.9 +49.9° C	0.1° C	±2° C
+50.0 +199.9° C	0.1° C	±(3 % rdg. + 1°C)
+200 +250° C	1° C	±(3 % rdg. + 1°C)
Temperature change/response time	e > 5 K/s	
Probe dimensions		
TPP1-C1	128 mm x Ø 3.8 mm	
TPP2-C1	125 mm x Ø 13.7 mm	
	(tube Ø 3.8 mm)	
Power supply	1x battery 3 V, IEC 2032	
Dimensions		
(with protective sleeve):	approx. 40 x 30 x 160 n	nm
Weight	approx. 16 g	

Included: 1x TPP1-C1 or TPP2-C1, 1x Battery 3 V, IEC 2032, 1x User manual





TPP2-C1 Article no. 2826652



Heat-conducting paste up to 250 °C (30 g) Model 1032

Article no. 2145689

#### Digital humidity and temperature meter

#### **Functions**

- Humidity measurement
- Temperature measurement

#### **Product information**

- Probe integrated in deviceSwitchable between °C and °F
- measurement
- Integrated measurement memory (data hold)

  • MIN and MAX data hold
- Auto Power Off

#### **Product highlights**

- Compact and handy design
- Dew point measurement

•	Measurement of wet bulb	
	temperature	

#### **Technical specifications**

Display	Dual LCD
Humidity measurement	
Measurement range	0 to 100% rel. humidity
Resolution	0.1%
Accuracy	± 3% rel. humidity
Temperature measurement	
Measurement range	-20 to +50°C / -4 to +122°F
Resolution	0.1°C / 0.1°F
Accuracy	± 0.6°C / ± 1F
Power supply	1x battery 3V, CR2032
Dimensions	175 x 42 x 16 mm
Weight	approx. 120 g

Included: 1x TH-1, 1x Battery 3 V, CR2032, 1x User manual





TH-1 Article no. 3311871



## Digital humidity and temperature meter

#### **Functions**

- Humidity measurement
- Temperature measurement

#### **Product information**

- Probe integrated in device
- Switchable between °C and °F measurement
- Integrated measurement memory (data hold)
- MIN and MAX data hold
- Auto Power Off

#### **Technical specifications**

recillical specifications	
Display	LCD, 31/2 digit
Humidity measurement	
Measurement range	595% rel. humidity
Resolution	0.1%
Accuracy	± 3% rel. humidity
Response time	< 3 min.
Temperature measurement	
Measurement range	-20+60°C / -4+140°F
Resolution	0.1°C / 0.1°F
Accuracy	± 0.8°C / ± 1.6°F
Response time	< 10 sec.
Power supply	1 x battery 9 V, IEC 6LR61 or 6F22
Dimensions	240 x 54 x 34 mm
Weight	approx. 180 g





THWD-3 Article no. 3033042

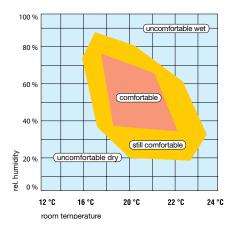
#### THWD-3

# Digital humidity and temperature meter

#### As TH-3, but with:

- Dew point measurement
- Measurement of wet bulb temperature

Included: 1x TH-3 or THWD-3, 1x Carrying case, 1x Battery 9 V, IEC 6LR61, 1x



#### MT-10

#### Moisture meter for construction and timber

#### **Functions**

- Moisture meters for construction and timber
- Temperature measurement

#### **Product information**

- Probe integrated in device
- Switchable moisture measurement for timber or construction materials
- Switchable temperature measurement in °C or °F
- Back lightAuto Power Off

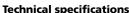
#### **Product highlights**

- Compact and handy design
- Quick and simple statement regarding themoisture content by means of 3 LEDs:

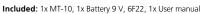
- green: - yellow:

- red:

air-dry environment increased moisture excessive moisture



lechnical specifications			
Display	LCD, 3½ digit and 3 LEDs		
Humidity measurement			
Measurement principle of electric re-	sistance		
Measurement range			
Timber	860%		
Construction material	0.32.0%		
Temperature	0+40°C or +32+99°F		
Resolution			
Timber	0.1%		
Construction material	0.01%		
Temperature	0.1°C / 0.2°F		
Accuracy			
Timber	±2%		
Construction material	±0.1%		
Temperature	±1°C / ±2°F		
Power supply	1x battery 9 V, 6F22		
Dimensions	145 x 60 x 31 mm		
Weight	approx. 100 g		





MT-10 Article no. 3503178



#### TR200-A

#### Temperature / RH Data Logger with Digital Display

- Temperature measurement
- Relative Humidity measurement
- Data Logger

#### **Product information**

- Wall mountable
- Offers visible LEDs warnings to monitor IAQ condition
- Instrument for monitoring indoor temperature and humidity
- Selection of save slots: 1000, 2000, 4000, 8000, 12000, 16000 max. per function
- Auto shutoff
- Can only be used via PC!

#### **Product highlights**

- USB interface
- IP65 rated for dust and moisture
- Optical limit value display

Included: 1x TR200-A, 1x User manual, 1x Battery 3.0 V, IEC CR2, 1x USB cable, 1x CD with software (download suite)

#### **TR300**

#### Temperature / RH Data Logger with Digital Display

- Temperature measurement
- Relative Humidity measurement
- Data Logger
- Dew point display

#### **Product information**

- Instrument for indoor air quality monitoring
- Wall mountable, self-standing or tripod mountable
- Displays temperature, relative humidity
- Air Temperature or Dew Point (DP) display and Celsius/Fahrenheit are selectable
- Offers visible LEDs warnings to monitor IAQ condition
- Small size design
- Selection of save slots: 1000, 2000, 4000, 8000, 12000, 16000

Display Ranges Temperature range

Tolerance Temperature

Resolution

Temperature Relative humidity Power supply

Dimensions

Weight

Relative Humidity

Relative Humidity

#### **Product highlights**

- Real time marking (date/time)
- USB interface

#### • Extra large digital display

-20...+70 °C

±0.6 °C at 0...50 °C; otherwise ±1.2 °C

±3 % at 10...90 %; otherwise

4x battery 1.5 V, IEC LR6

175 x 42 x 16 mm

approx. 200 g

0...100 %

Alarm function

**TR300 Technical specifications** 



TR200-A

Article no. 3477302

Article no. 3503184

TPK-60, external temperature sensor Model TPK-60

Accessories:

TR300 Article no. 3311844

#### TR200-A Technical specifications

1K200-A Technical specifications			
Display	LCD, 3¾ digit, 1999 digits		
LED display	red: Hi-Lo Alarm: yellow Recording		
Measurement ranges Temperature			
Internal probe	-40 °C+85 °C		
External probe	-40 °C+100 °C		
Relative Humidity	0.099.9 %		
Tolerance			
Temperature	±0.6 °C (-20 °C+50 °C);		
	otherwise ±1.2 °C		
Relative Humidity	±3 % at 25 °C; otherwise 5 %		
Resolution temperature	0.1 °C		
Resolution RH	0.1 %		
Save slots	1000, 2000, 4000, 8000, 12000, 16000		
Power supply	1x battery 3.0 V, IEC CR2		
Protection category	IP54		
Dimensions	75 x 55 x 23 mm		
Weight	approx. 200 g		

**Included**: 1x TR300, 1x User manual, 4x Battery 1.5 V, IEC LR6, 1x USB cable, 1x CD with software (download suite)

#### **CM100**

#### Carbon Monoxide Meter

#### **Functions**

- Monitoring carbon monoxide concentrations with an alarm function
- Preset threshold value of 25 ppm for safe recognition of risks

#### **Product information**

- Adjustable threshold values: 25, 30, 35, 45, 50, 70, 100, and 200 ppm
- Display of measured value and
- maximum value
- Self-test function
- Auto Power Off

#### **Product highlights**

- Display of maximum carbon monoxide concentration
- Illuminated display

#### **Technical specifications**

Display	LC display, 3 digit, 1000 digits	
Measurement range/resolution	T .	
Carbon monoxide (CO)	0999 ppm / 1 ppm	
Accuracy	± 20% at 0 – 100 ppm ± 15% at 100 – 500 ppm (at 20 °C +/-5%, 50 +/-20% RH)	
Operating		
temperature range	-10 +60°C (599% rel. humidity)	
Power supply	3x batteries 1.5 V, IEC LR 03 (AAA), Micro	
Dimensions	175 x 47 x 28 mm	
Weight	approx 130 g	

Included: 1x CM100, 3x Batteries 1.5 V, IEC LR 03, 1x Carrying case, 1x User manual



CM100 Article no. 3311826

#### Temperature sensors and accessories



#### **TPK-59**

#### Flexible Wire Probe 4 mm Plug

- with 4 mm plug (clearance 19 mm)
- Probe length approx. 0.9 m

#### K-type temperature sensor

Temperature range -46 °C...+316 °C ±1.5 °C Accuracy

**TPK-59** 

Article no. 2733660



#### Type 101 (Model: 5795)

K-type surface probe

Temperature range	-50 °C+450 °C
Response time	approx. 5.5 s (63.2 % of final
	temperature value)
Accuracy	±1.5 ℃
Connection cable	approx. 500 mm spiral cable
Dimensions	130 x 4 mm
Weight	approx. 115 g

Type 101 (Model: 5795)

Article no. 2147199



#### Type 104 (Model: 5794)

K-type liquid sensor

T	E0.0C .1100.0C
Temperature range	-50 °C+1100 °C
Response time	approx. 12.0 s (63.2 % of final
·	temperature value)
Accuracy	±1.5°C (from 400 °C,
	0.48 % rdg.)
Connection cable	approx. 500 mm spiral cable
Dimensions	130 x 3 mm
Weight	approx. 105 g

Type 104 (Model: 5794)

Article no. 2147186



#### TPK-60

#### **Temperature Probe**

- 2.5 mm jack plug
- Fits the TR100-A and TR200-A
- Cable length 115 mm
- Temperature range (see TR200-A on page 61)

Article no. 3503184



#### Type 106 (Model: 5793)

#### K-type immersion probe

, p	
Temperature range	-50 °C+600 °C
Response time	approx. 12.0 s (63.2 % of final temperature value)
Accuracy	±1.5°C (from 400 °C, 0.48 % rdg.)
Connection cable	approx. 500 mm spiral cable
Dimensions	130 x 3 mm
Weight	approx. 105 g

Type 106 (Model: 5793)

Article no. 3313234



#### Type 110 (Model: 5797)

#### K-type fast response surface probe

_	
Temperature range	-50 °C+900 °C
Response time	approx. 2.3 s (63.2 % of final temperature value)
Accuracy	±1.5 °C (from 400 °C, 0.48 % rdg.)
Connection cable	approx. 500 mm spiral cable
Dimensions	130 x 8 mm
Weight	approx. 112 g

Type 110 (Model: 5797)

Article no. 3313241



#### **TPK-62**

#### 2x temperature probes with adapter

- 4 mm jacks, connection for K-type probeSuitable for AM-540-EUR and AMP-555-EUR
- Temperature range (see AM-540-EUR/ AM-555-EUR on page 24)

Article no. 4160703



#### Heat-conducting paste

- Heat-conducting paste up to 250 °C (30 g)
- Contains silicone

1032

Article no. 2145689



#### Type 111 (Model: 5790) K-type flexible wire probe

	_	
Temperature range	-50 °C+400 °C	
Response time	approx. 5.0 s (63.2 % of final	
	temperature value)	
Accuracy	±1.5 °C	
Dimensions	1000 x 2 mm	
Weight	approx. 22 q	

Type 111 (Model: 5790)

Article no. 3313229



#### TM-SWA

#### Data Logging Software and RS232 Cable for TMA10A

- Real-time software logs and displays data from all measurement functions
- Record two channels simultaneously
- Air Flow and Temperature with TMA10 device
- Save results for subsequent analysis
- Automatic calculation of results including maximum, minimum, average, and standard deviation

#### TM-SWA

#### 93560

#### Digital Light Meter with Save Function

#### **Functions**

• Illuminance measurement

#### **Product information**

- · Automatic range selection
- Silicon sensor

#### • Integrated measurement memory (data hold)

#### **Product highlights**

Measurement memory for 99 individual readings

#### **Technical specifications**

Display	LCD, 4 digit
Measurement ranges	050 lx, 0500 lx, 05000 lx,
(Auto range)	050 klx, 0200 klx
Resolution	0.01 lx, 0.1 lx, 1 lx, 10 lx,
of the display	100 lx
Measurement ranges	05, 050, 0500,
	05000 fc,
	020 kfc
Accuracy	< 10 %
Temperature drift	< 1%/K
Power supply	6x battery 1.5 V, IEC LR03
Dimensions	150 x 72 x 35 mm (unit)
	92 x 60 x 29 mm (sensor)
Weight	approx. 250 g

Included: 1x 93560, 6x Battery 1.5 V, IEC LR03, 1x Carrying case, 1x User manual



93560 Article no. 3222543

#### LM-100

#### **Digital Lux Meter**

#### **Functions**

Light measurement

#### **Product information**

- Manual range selection
- Silicon sensor
- Integrated measurement memory

#### **Technical specifications**

Display	LCD, 31/2 digit
Measurement range	020 (only LM-120)
	0200, 2000, 20.000,
	200,000 Lux
	0–20, 200, 2000, 20,000 fc
Resolution	0.1, 1, 10, 100 Lux
	0.01, 0.1, 1, 10 Fc
Accuracy	< 10 %
Power supply	1x battery 9 V, IEC 6F22
Dimensions	130 x 63 x 38 mm (unit)
	80 x 55 x 29 mm (sensor)
Weight	approx. 220 g

(data hold)

• Max data hold (Max)

**Product information** 

· Leaks indicated optically and

• Kit consisting of ultrasonic leak detector (ULD-300) and ultrasonic

transmitter (UT-300) in robust carrying

Included: 1x LM-100 or LM-120, 1x Battery 9 V, IEC 6F22, 1x Carrying case, 1x User manual

#### LM-120 Digital Lux Meter

#### As LM-110, but with:

- Automatic and manual range selection
- Minimum and maximum data hold (min/max)
- Auto Power Off
- Zero adjust knob





**Ultrasonic leak detection:** Sounds above 20 kHz cannot be heard by the human ear. Even the smallest leaks in pressurized air and gas systems cause turbulences, which in turn generate ultrasonic sounds.

The ULD-300 detects these sounds and pinpoints the exact location of the leak. The ULD-300 indicates leaks optically (10-stage LED scale) and acoustically (headphones) and features a thumb wheel for setting the device's sensitivity.





**TMULD-300** Article no. 2731543

#### Accessories:

Ultrasonic Transmitter Model UT-300 Article no. 2734446

#### TMULD-300

#### Ultrasonic leak detector kit

#### **Functions**

- Pressurized air leaks (HGV pressurized air, braking and suspension systems), leaks in refrigeration, air-conditioning and heating systems, leaks in steam lines etc.
- Leaks in door and window seals, roofs
- Leaks in the automobile sector: Windscreens, door seals

#### **Technical specifications**

ULD-300	35 kHz45 kHz ±6 dB
Power supply	1x battery 9 V, IEC 6LR61 (in any case)
Display	LED
Frequency:	
UT-300	40 kHz
Dimensions:	
ULD-300	65 x 185 x 25 mm
UT-300	65 x 165 x 25 mm
Weight:	
ULD-300	approx. 150 g (incl. battery)
UT-300	approx. 160 g (incl. battery)

case

acoustically

Included: 1x Ultrasound leak detector ULD-300, 1x Ultrasonic transmitter UT-300, 1x Headphones 1x Extension and parabolic attachment, 2x Batteries 9 V, IEC 6LR61, 1x Carrying case, 1x User manual



#### 93517

#### Digital sound level meter with storage function

#### **Functions**

 Measurement of sound level for a comparison with the guideline values for occupational safety (DGUV Regulation 6)

#### **Product information**

- Measurement according to frequency evaluation filters A and C, with direct display in dB
- Maximum data hold (Max Hold)
- Switchable between fast and slow response times
- Tripod connection

#### **Product highlights**

- DC and AC voltage output for connection to spectrum analyzers, level recorders, or FFT analyzers
- Measurement memory for 99 individual readings

#### **Technical specifications**

Display	LCD, 4 digit, bar graph
Measurement ranges	
Resolution	30130 dB/0.1 dB
Frequency range	31.5 Hz8 kHz
Measurement accuracy	Class 2 in accordance with IEC 61672
Response times	FAST (125 ms), SLOW (1s)
Recorder output	AC: 1 Vrms at 5 k $\Omega$ ,
	DC: 10 mV/dB at 5 k $\Omega$
Power supply	1x battery 9 V, IEC 6LR61
Dimensions	264 x 68 x 27 mm
Weight	approx. 260 g

**Included:** 1x 93517, 1x adjusting screwdriver, 1x 3.5 mm jack plug, 1x battery 9 V, IEC 6LR61, 1x carry case. 1x windbreak. 1x user manual



**SM-20A** Article no. 3477333

#### SM-10

#### Digital sound level meter

#### **Functions**

• Measurement of sound level

#### **Product information**

- Measurement according to frequency evaluation filters A and C, with direct display in dB
- Integrated measurement memory (data hold, MAX)
- Switchable between fast and slow response times
- Back light

#### SM-20A

# Digital sound level meter

#### As SM-10, but with:

- USB interface for PC connection
- Internal data logger for 14,000 readings

#### Technical specifications

	SM-10	SM-20A
Display	LCD, 4 digit	LCD, 4 digit
Measurement range/resolution		
A:	30130 dB. / 0.1 dB	3030 dB. (resolution: 0.1 dB)
C:	35130 dB. / 0.1 dB	35130 dB.(Resolution 0.1 dB)
Frequency range	31.5 Hz8 kHz	31.5 Hz8 kHz
Tolerance	±1.5 dB	±1.5 dB
Response times	Fast (125 ms); Slow (15 ms)	
Power supply	1x battery 9 V, IEC 6LR61	1x battery 9 V, IEC 6LR61
Dimensions	200 x 55x 38 mm	200 x 55 x 38 mm
Weight	approx. 230 g	approx. 230 g

Included: 1x SM-10 or SM-20A, 1x Battery 9 V, IEC 6LR61, 1x Carry case, 1x Windbreak (SM-10 only), 1x Interface cable (SM-20A only), 1x Software (SM-20A only), 1x User manual



SM-CAL1 Article no. 3052382

#### SM-CAL1

#### Sound level calibrator

#### **Functions**

Calibrator for sound level meters

#### **Product information**

- Two selectable areas: 94 dB and 114 dB
- Appropriate for 1/2" microphones

#### **Technical specifications**

Output signal	94 dB, 114 dB
Accuracy	± 0.5 dB
Frequency	1 kHz (±4 %)
Power supply	1x battery 9 V, IEC 6F22
Dimensions	Ø 48x 125mm
Weight	approx. 285 g

Included: 1x SM-CAL1, 1x 1/2" adapter, 1x Battery 9 V, IEC 6F22, 1x User manual

#### TMA5

#### Mini anemometer

#### **Functions**

- Air velocity measurement (m/s)
- Temperature measurement
- · Humidity measurement

· Automatic range selection

- Integrated measurement memory (data hold)
- Auto power-off (can be deactivated)

#### **Product highlights**

- External temperature sensor can be connected
- Dew point measurement
- Measurement of wet bulb temperature



TMA5 Article no. 3503169

#### **Product information**

**Technical specifications** 

Display	LCD, 3¾ digit, 3999 digits
Measurement ranges Air velocity	1.120.0 m/s, 0.772.0 km/h, 0.544.7 mph
	603937 ft/m, 0.438.8 KNT, 18 BF
Basic accuracy	$\pm$ 5% rdg or $\pm$ 5 digits (the higher value applies)
Temperature (int.)	0°C50°C, 32°F122°F
Resolution	0.1 °C/°F
Basic accuracy	± 1°C
Temperature (ext.)	-20°C70°C, -4°F158°F
Resolution	0.1 °C/°F
Basic accuracy	± 0.6°C
Humidity	5%95% relative humidity
Resolution	0.1% relative humidity
Basic accuracy	± 3.5% relative humidity
Power supply	1x battery 3.0 V, IEC CR 2032
Dimensions	136 × 46 × 17 mm
Weight	approx.135 g

Included: 1x TMA5, 1x Temperature probeTPK60, 1x Battery 3.0 V, IEC CR 2032, 1x Carrying case, 1x Strap hanger, 1x User manual

#### TMA10A

#### Anemometer

#### **Functions**

- Air velocity measurement (m/s)
- Airflow measurement (m3/s)
- Temperature measurement

#### **Product information**

- Integrated measurement memory (data hold)
- MIN/MAX and AVG value measurement
- Auto power-off (can be deactivated)
- Ideal for measurements in ventilation, air-conditioning and heating systems
- Flexible precision vane

#### **Product highlights**

- RS-232 interface for PC connection
- TM-SWA software (optional)

<b>Technical specifications</b>		
Display	LCD, 4 digit, 9999 digits	
Measurement range (m/s)	0.40-25.00 m/s (resolution: 0.01 m/s)	
Basic accuracy	±(3% rdg.)	
Volume flow	0.0199.99 m3/s (Resolution 0.01 m3/s)	
Temperature	050 °C or 32122 °F (Resolution 0.1 °F/°C)	
Basic accuracy	± 1.5 °F / 0.8 °C	
Power supply	1x battery 9 V, IEC 6LR61	
Dimensions	181 x 71 x 38 mm	
Weight	approx. 360 g (incl. battery)	

Included: 1x TMA10A, 1x Carry case, 1x Battery 9 V, IEC 6LR61, 1x User manual



TMA10A Article no. 2817785

#### Accessories:

TM-SWA data logging-software and RS232 cable Model TM-SWA

Article no. 3027085

#### TMA-21HW

#### Hot-wire anemometer

#### **Functions**

- Air velocity measurement (m/s)
- Airflow measurement (m3/s)
- Temperature and humidity measurement

#### **Product information**

• Integrated measurement memory (data hold)

- MIN/MAX and AVG value measurement
- Auto power-off (can be deactivated)
- Ideal for measurements in ventilation, air-conditioning and heating systems
- · Large, illuminated display

#### **Product highlights**

 USB interface for transferring stored measurements to a PC

#### **Technical specifications**

Display	LCD, 4 digit, 9999 digits
Measurement ranges (m/s)	0.130.0 m/s (Resolution 0.1 m/s)
Basic accuracy	± (3% rdg.)
Volume flow	0.0199.99 m3/s (Resolution 1 m3/s)
Temperature	-2060 °C (Resolution 0.1 °C)
Basic accuracy	± 0.5 °C
Memory	512KB for 99 datasets
Power supply	6x battery 1.5 V, IEC LR03
Dimensions	150 x 72 x 35 mm (unit)
Weight	approx 300 g (incl. hattery)

Included: 1x TMA-21HW, 1x Telescopic probe, 1x Carry case, 6x Battery 1.5 V, IEC LR03, 1x USB cable, 1x Software on CD, 1x User manual

- 1.2m telescopic probe simplifies measuring
- Integrated data logger for records over a longer timeframe



TMA-21HW Article no. 3730239

#### TACH20

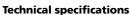
#### Digital tachometer

#### **Functions**

- Rotational speed measurement
- Surface speed measurement
- · Length measurement

#### **Product information**

- Display of rotational speed
- Display of surface speed in m/min, ft/
- min and in/min
- Display of length measurement in m, ft and inch
- Integrated measurement memory
- Display shows last, maximum or minimum value
- Optical (non-contact) or mechanical, adapter-based measurement
- Visible optical measurement performed using infrared beam
- Auto power off after approx. 30 sec (data remains saved)



Display	LCD, 5 digit
Ranges	
Rotational speed	1 99,999 1min
Speed	0.1 1,999 m/min
Length	0.02 99,999 m
Tolerance	± 0.2 % ± 0.02 % (rpm)
Measurement time	0.5 s/1 period at low rpm
Measurement distance	max. 350 mm
Power supply	2x battery 1.5 V, IEC LR6
Dimensions	180 x 60 x 25 mm
Weight	approx. 195 g

Included: 1x TACH20, 1x Mechanical measurement adapter, 1x Extension, 2x Probes, 2x Measuring wheel, 10x Reflex stickers, 2x Batteries 1.5 V, IEC LR6, 1x Case, 1x User manual



TACH20

Article no. 3311961

#### Accessories:

Reflex stickers 75 mm long (10 pcs.) Model 1154

Article no. 2145762





TACH-10 Article no. 3730008

#### TACH-10 Digital tachometer

#### **Functions**

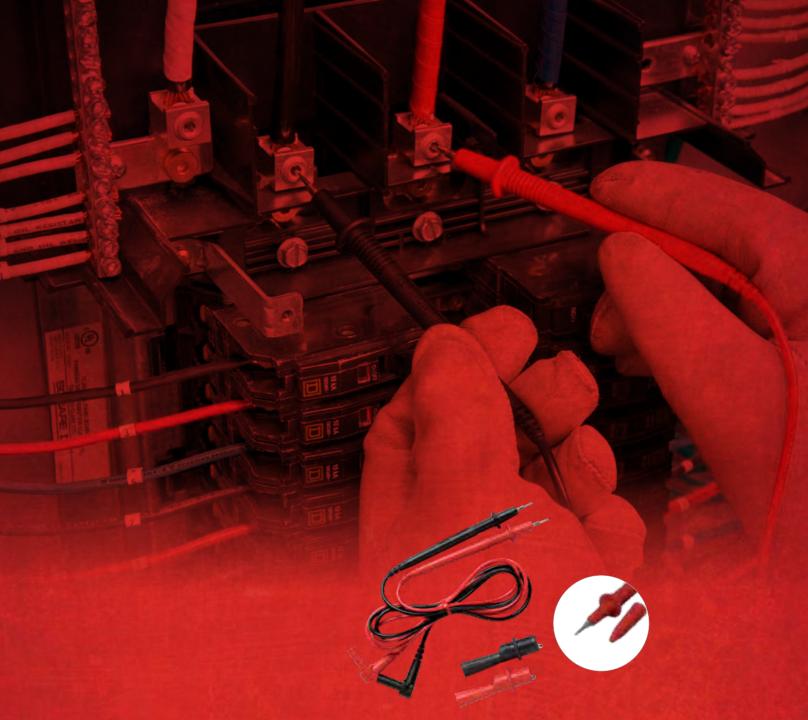
- Rotational speed measurement
- Surface speed measurement

#### **Product information**

- Display of rotational speed
- Display of surface speed in m/min, ft/ min and in/min
- The last value is shown in the display
- Optical (non-contact) or mechanical, adapter-based measurement
- Visible optical measurement performed using infrared beam
- Auto Power Off

#### Technical specifications

recilinations	
Display	LCD, 5 digit
Ranges	
Rotational speed	10 99,999 1min
Speed	1.000 9,999 m/min
Tolerance	± (0.1 % rdg. + 2 digits)
Measurement distance	50-300 mm
Power supply	1x battery 9 V, IEC 6LR61
Dimensions	270 x 180 x 30 mm
Weight	approx. 550 g



# Measurement accessories for a secure connection

The right measurement and testing equipment, as well as the appropriate measurement accessories are important components for carrying out measurements in a safe, reliable manner.

The following measurement accessories contain various test leads, probes, and crocodile clips. This ensures that any user can find the necessary tools required for their measurement task.



#### **Test leads SML 4W** 4 mm safety plug-in technology

#### **Accessory information**

- Safety test lead, flexible 0.8 mm<sup>2</sup>
- Current-carrying capacity 16 A
- Measurement category CAT III / 600 V

#### Design

- PVC insulation
- Two-way safety plugs with onward connection capability in accordance with DIN VDE 0411/ EN 61010/IEC 61010

**307121** (red - 2000mm)

Article no. 2146508

**307122** (black - 2000mm) Article no. 3313561

**307111** (red - 1000mm)

Article no. 2146495

**307112** (black - 1000mm)

Article no. 3313550



#### Safety clamp-type test probe SKP 41 set

#### 4 mm plug-in technology

#### **Accessory information**

- Approx. 155x 49 mm
- Current-carrying capacity 2 A
- Measurement category CAT III/1000 V

#### Design

- Spring wire grabber with flexible, insulated shaft
- Safety clamp-type test probe with 4-mm safety jack in accordance with DIN VDE 0411/ EN 61010/IEC 61010

Set, consisting of: 1x SKP 41 gray/red, 1x SKP 41 gray/black

#### 370010

Article no. 2146701





#### High current safety clamp-type test probe HCP 41 set

#### 4 mm plug-in technology

#### **Accessory information**

- Approx. 160 x 60 mm
- Current-carrying capacity 10 A
- Measurement category CAT III/1000 V

#### Design

 Safety clamp-type test probe with 4-mm safety jack in accordance with DIN VDE 0411/EN 61010/IEC 61010

Set, consisting of: 1x HCP 41 gray/red, 1x HCP 41 gray/black

#### 370024

Article no. 2146758





#### **Probes PSS set of 2 Accessory information**

- Approx. 100 x 21 mm
- Current-carrying capacity 6 A
- Measurement category CAT III/1000 V

#### Design

 Safety probe with 4-mm safety jack in accordance with DIN VDE 0411/EN 61010/IEC 61010

#### Set, consisting of:

1x probe PSS 2 gray/red 1x probe PSS 2 gray/black

#### 370008

Article no. 2146694





#### Probes PSK set of 2

#### 2 mm probe, short version

#### **Accessory information**

- Approx. 102x 10 mm
- Current-carrying capacity 16 A
- Measurement category CAT III/1000 V, CAT IV/600 V (with cover)
- Measurement category CAT II/1000 V (without cover)

#### Design

• Safety probe with safety jack 4-mm and 2 mm stainless steel probe in accordance with DIN VDE 0411/EN 61010/ IEC 61010

#### Set, consisting of:

1x probe PSK 2, gray/red (with cover) 1x probe PSK 2 gray/black (with cover)

#### 370004

Article no. 2146675





#### TL-300

### Test lead set with crocodile

(red, black, yellow), case, and temperature probe

#### Technical specifications

.ccca. specica	
Current-carrying capacity	10 A
Current-carrying capacity	10 A
Measurement Category	
Probes	CAT IV/1000 V (with cover)
	CAT II/1000 V (without cover)
Crocodile clips	CAT IV/600 V, CAT III/1000 V
Pollution degree	2
Safety cert.:	DIN VDE 0411/
	EN 61010/IEC 61010
Temperature probes	K-type flexible wire probe
	4 mm plug (distance 19 mm)
Probe length	approx. 0.9 m
Temperature range	-20 °C+250 °C
Accuracy	-200 °C: ±2.5 °C or
	±1.5% rdg.
	0250 °C: ±1.1 °C or
	±0.4% rdg.

#### TI -300





#### Safety crocodile clip KS 4L set 4 mm plug-in technology

#### **Accessory information**

- 94x 42 mm
- Current-carrying capacity 16 A
- Measurement category CAT III/1000 V, CAT
- Opening: approx. 24 mm

#### Design

• Safety crocodile clip with 4-mm safety jack in accordance with DIN VDE 0411/EN 61010/IEC 61010

Set, consisting of: 1x KS4L gray/red, 1x KS4L gray/black

#### 370012

Article no. 2146712





#### Crocodile clips for conductor rails

#### 4 mm safety plug-in technology

#### **Accessory information**

- 155x 40.5 mm
- Current-carrying capacity 5 A
- For conductor rails up to 30 mm
- Measurement category CAT III/600 V
- Opening: 0...20 mm/10...30 mm

#### Design

- Crocodile clip for secure measurement on conductor rails
- 4 mm safety plug-in technology

#### 391511 (red)

Article no. 2146861

**391512** (black)

Article no. 2146877







#### Professional test lead set for multimeters

#### 2 mm safety probes

#### **Accessory information**

- Test lead set with
- 4 mm safety plug-in technology
- Ergonomic handle
- Silicone safety test lead
- Measurement category CAT IV / 1000 V (with cover)
- Measurement category CAT II / 1000 V (without cover)
- · 2mm probes

#### **Technical specifications**

Current-carrying capacity	max. 20 A
Measurement category	CAT IV / 1000 V (with cover)
	CAT II / 1000 V (without cover)
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/
	IEC 61010

Included: 2x test leads, approx. 1 m long, 2 covers

#### 1306

Article no. 3313458





#### Professional test lead set for multimeters

#### 4 mm safety probes

#### **Accessory information**

- Test lead set with 4 mm safety plug-in technology
- Ergonomic handle
- Silicone safety test lead
- Measurement category CAT IV / 1000 V (with cover)
- Measurement category CAT II / 1000 V (without cover)
- 4mm probes

#### Technical specifications

Current-carrying capacity	max. 20 A
Measurement category	CAT IV / 1000 V (with cover)
	CAT II / 1000 V (without cover)
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/
	IEC 61010

Included: 2x test leads, approx. 1 m long, 2x covers

#### 1307

Article no. 2146176





#### Unidreh accessory set 4 mm plug-in technology

#### **Accessory information**

- Self-retaining probes with clamping range ø 4...8 mm
- Safe contacting, e.g. in CEE 16 A- and CEE 32 A sockets
- Crocodile clip included

#### **Technical specifications**

Current-carrying capacity	8 A
Measurement Category	
Probes (Astaco)	CAT II/1000 V
Crocodile clip (KS4L)	CAT III/1000 V, CAT IV / 600 V
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/
	IEC 61010





A·AMPROBE<sup>®</sup>

The solution for secure contacts with

Article no. 2146183





#### Mini crocodile clips

2 mm plug-in technology (fits all 2 mm multimeter probes)

#### **Accessory information**

- 41 5x 13 mm
- Max. voltage 33 V AC / 70 V DC
- Opening: approx. 7 mm

#### Design

• Miniature crocodile clip

#### 390450 (red)

Article no. 2406492

#### 390451 (black)



#### TL36A

### Test lead set with crocodile clips 2 mm safety probes

#### **Accessory information**

- Test lead set with 4 mm safety technology
- PVC-insulated leads
- Threaded test probes
- Crocodile clips with thread connection, opening approx. 10 mm

#### **Technical specifications**

Measurement categories	
Test lines	CAT III/1000 V, CAT IV/600 V (with cover) CAT II / 1000 V (without cover)
Current-carrying capacity	10 A
Crocodile clips	CAT III / 1000 V, CAT IV / 600 V
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/ IEC 61010

**Included:** 2x test leads, approx. 1 m long, with covers, 2x crocodile clips

#### TL36A

Article no. 3034444





#### TL35B

# Test lead set with safety crocodile clips 2 mm safety probes

#### **Accessory information**

- Test lead set with 4 mm safety technology
- PVC-insulated leads
- Threaded test probes
- Safety crocodile clips with thread connection, opening approx. 16 mm

#### Technical specifications

recillical specifications				
Measurement categories				
Test lines	CAT III/1000 V, CAT IV/600 V (with cover) CAT II / 1000 V (without cover)			
Current-carrying capacity	10 A			
Crocodile clips	CAT III / 1000 V, CAT IV / 600 V			
Pollution degree	2			
Safety cert.:	DIN VDE 0411/EN 61010/ IEC 61010			

Included: 2x test leads, approx. 1 m long, with covers, 2x crocodile clips

#### TL35A

Article no. 3068232





#### EU-200 Test lead set

#### **Accessory information**

- Test lead set with 4 mm safety technology
- 4 mm test probes

#### **Technical specifications**

Measurement categories	
Test leads	CAT III / 1000 V
Probes	CAT IV / 600 V, CAT III / 1000 V (with cover) CAT II / 1000 V (without cover)
Current-carrying capacity	16 A
Crocodile clips	CAT III / 1000 V, CAT IV / 600 V
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/

Included: 2x test leads, 2x probes (with covers), 2x crocodile clips

#### EU-200

Article no. 2745046





#### Safety set

#### **Accessory information**

• Test lead set with 4 mm safety technology

#### Technical specifications

Current-carrying capacity	16 A
Measurement Category	
Safety test	
leads	CAT III/1000 V
Probes	CAT III/1000 V, CAT IV / 600 V
	(with cover)
	CAT II / 1000 V (without cover)
Crocodile clip	CAT III/1000 V
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/
	IEC 61010

**Included:** 1x safety test lead, red, 1x safety test lead, black, 1x probe, red, with cover, 1x probe, black, with cover, 1x crocodile clip, red, 1x crocodile clip, black

#### 370003

Article no. 2146666





#### Electronics set

#### **Accessory information**

• Test lead set with 4 mm safety plug-in technology

#### Technical specifications

Current-carrying capacity	2A/6A/16A
Measurement Category	
Safety test leads	CAT III/1000 V
Probes	CAT III/1000 V
Crocodile clip	CAT III/1000 V
Clamp-type test probes	CAT III/1000 V
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/
	IEC 61010

**Included:** 1x safety test lead, red, 16A, 1 s safety test lead, black, 16A, 1x crocodile clip, red, 16A, 1x crocodile clip, black, 16A, 1x safety clamp-type test probe, red, 2A, 1x safety clamp-type test probe, black, 2A, 1x safety probe, red, 6A, 1x safety probe, black, 6A

#### 370001

Article no. 3313577





#### Electrician set

#### **Accessory information**

• Test lead set with 4 mm safety plug-in technology

#### **Technical specifications**

Current-carrying capacity	6A/10A/16A
Measurement Category	
Safety test	
leads	CAT III/1000 V
Probes	CAT III/1000 V
Crocodile clip	CAT III/1000 V
Clamp-type test probes	CAT III/1000 V
Pollution degree	2
Safety cert.:	DIN VDE 0411/EN 61010/
	IEC 61010

**Included:** 1x safety test lead, red, 16A, 1 s safety test lead, black, 16A, 1x safety probe, red, 6A, 1x safety probe, black, 6A, 1x safety clamp-type test probe, red, 10A, 1x safety clamp-type test probe, black, 10A, 1x crocodile clip, red, 16A, 1x crocodile clip, black, 16A

#### 370000







1150 Carrying case

- Material: Nylon, upholstered, fasteners, Lanyard Internal dimensions: 200 x 150 x 40 mm

Article no. 2145755



#### 1175 Carrying case

- Material: Nylon, upholstered, belt loop
- Internal dimensions: 295 x 80 x 50 mm

1175

Article no. 2145796



1193 Professional carry case

- Material: Nylon, upholstered, fasteners, Neck
- Internal dimensions: 300 x 400 x 65 mm

1193

Article no. 2145812



VC30A Carrying case

• Material: Imitation leather, carrying strap • External dimensions: 200 x 80 x 45 mm

VC30A

Article no. 3068280



**VC221B** Carrying case

- Material: Imitation leather, carrying strap External dimensions: 220 x 115 x 60 mm

VC221B

Article no. 3068271



CC-ACDC Carrying case

- Material: Nylon, carrying strap, belt loop External dimensions: 300 x 120 x 60 mm

CC-ACDC

Article no. 2732643

#### **Fuses**

Model	ltem no.	Description
FP100	1990707	Fuse Pack (2x 10 A/1000 V)
FP125	1561550	Fuse Pack (4x 0.1 A/250 V)
FP160	1990718	Fuse Pack (2x 10 A/600 V)
FP200	2095180	Fuse Pack (2x 2 A/1000 V)
FP300	1990688	Fuse Pack (4x 0.315 A/1000 V)
FP375	1561610	Fuse Pack (4x 0.25 A/500 V)
FP400	1561631	Fuse Pack (4x 10 A/600 V)
FP410	3368658	Fuse 11 A/1000V
FP425	1561646	Fuse Pack (2x 20 A/600 V)
FP500	1990695	Fuse Pack (4x 0.5 A/1000 V)
FP520	3157013	Fuse Pack (2x 0.5 A/500 V)
FP600	1565777	Fuse Pack (2x 15 A/600 V)
FP700	2637713	Fuse Pack (2x 2 A/1500 V) for HD160C
FP900	2278800	Fuse Pack (2x 200 mA/600 V)



# Appendix

- Measurement categories
- Product Index



# Things worth knowing about measurement categories, pollution degree, labeling, and symbols

#### **Measurement categories:**

Measurement category was referred to as overvoltage category in an earlier publication of DIN VDE 0411-1:1994.

#### 0 - no measurement category:

Several types of testing and measurement circuits are not intended for direct connection to the mains supply. These are circuits, which are not directly connected to the mains, e.g. circuits within devices after the input transformer. No standard values for overvoltage are defined for such circuits.

#### **CAT II - Measurement category II:**

Operating or testing equipment that is connected between the sockets and the consumers. Only small overvoltages through lightning strikes have to be taken into account for CAT II measurement category equipment, although overvoltages caused by switching operations can arise. Short circuit currents of up to 10kA must be expected. Examples for operating equipment within this category include electrical equipment connected to sockets.

#### CAT III - Measurement category III:

Operating or testing equipment that is connected between the energy meter and the sockets. In the case of such operating equipment, limited overvoltages can arise through lightning strikes, and short circuit currents of up to 50 kA must be expected. Examples for operating equipment in this category includes building installations, fuses, circuit breakers, residual current devices, switches, sockets, or permanently installed operating equipment.

#### **CAT IV - Measurement category IV:**

Operating or testing equipment that is connected between the source of the low-voltage network outside the building and the energy meter. Stronger overvoltages and lightning strikes must be taken into account with such operating equipment. Examples of operating equipment belonging to measurement category IV include cables in front of the energy meter, service lines, overhead lines, and underground cables. Short circuit currents of over 50 kA must be expected.

#### **Pollution Degree**

The insulation capability of measurement and testing equipment can be severely reduced by surface contamination. Particles of dust and soot, or water can create conductive connections and considerably reduce the surface resistance of the insulation.

#### **Pollution Degree 1**

There is either no contamination, or only dry contamination with no conductivity.

This pollution has no effect.

#### **Pollution Degree 2**

Usually, only non-conductive contamination is found. However, temporary conductivity due to condensation should be expected on occasion.

Operation site, e.g. industrial, or in a laboratory.

#### **Pollution Degree 3**

Either conductive contamination takes place, or there is dry, non-conductive contamination which becomes conductive due to condensation that is expected.

Operation site, e.g. heavy industry, construction sites, brief usage in the open air.

#### Labeling and symbols

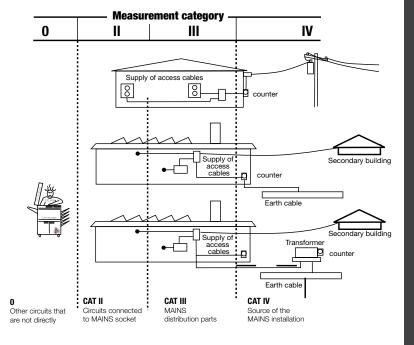
- Marning of a hazardous area, observe the instruction manual
- Caution! Hazardous voltage, risk of electric shock
- Double or reinforced insulation in accordance with Class II IEC 61140 (Protection class II)
- Conformity mark, confirms adherence to the relevant guidelines and regulations applicable to the respective equipment

#### **Protection types**

In electronic measurement and test devices, and other operating equipment, the protection against foreign bodies (dirt) and water is indicated by two digits after the short form IPxx. The first digit can be from 0 to 6. This indicates the protection against the ingress of foreign bodies. 0 indicates no protection, 6 indicates protection against the ingress of dust. The second digit can be from 0 to 8. This indicates the protection against the ingress of water. 0 indicates no protection, 8 indicates protection against the ingress of water when submerged.

#### **Protection Levels**

- Protection class I: Protection via protective earth
- Protection class II:
  Protection via protective insulation
- Protection class III:
  Protection via safety extra-low voltage



### Complete Beha-Amprobe Product Index

Model	ltem number	Description	Model	Item number	Description
Valtana Cantinuita Tastana			HD110C	2670779	Heavy Duty Multimeter
Voltage Continuity Testers	•		HD160C	2670787	Heavy Duty Multimeter
2100-ACCS	4736214	4 mm Probe extenders, tip covers for 2100-series	LCR55A	3026976	Handheld Capacitance Tester with Transistor Test
2100-ALPHA 2100-BETA	4312495 4312508	Two Pole Tester LED Two Pole Tester LCD/LED	PM51A	2727700	Pocket Multimeter
2100-BETA 2100-GAMMA	4709243	Two Pole Tester 1000V AC/1200V DC, NCV, LCD/LED	PM55A	2727721	Pocket Multimeter
9023D	2147430	Continuity-Tester Unitest Testfix	Clamp Meters		
9072-D	3454373	Continuity-Tester Ohmtest			
9080D	3530534	Socket Tester Schuko-Test	93570D	3313218	CHB5 Leakage Current Clamp with Harmonics
BAT-250-EUR LT-10-ANT	4620297 4357839	Battery Tester Fluorescent & sodium lamp antenna set with carry case for LT-10	AC50A AC68C	3033017 2727919	Leakage Clamp Meter Specialty Clamp Multimeter 600A ACDC
LT-10-EUR	4386345	Lamp Tester	AC75B	2727885	Specialty Clamp Multimeter 600A ACDC
NCV-1020-EUR 12PK	5017155	Voltfix, Non-Contact Voltage probe	ACD-10 PLUS	3037808	Clamp Multimeter 600A
NCV-1020-EUR VOLTfix	4918072	Non-Contact Voltage (NCV) tester for detecting AC voltage without	ACD-14 PLUS	3086905	Clamp Multimeter 400A
NCV 1020 EUR 12DV	E017162	interrupting electrical systems	ACD-14-PRO-EUR ACD-16 TRMS-PRO	4718989	ACTRMS Clamp Meter, Dual Display, 600 A, jaw 30 mm Recording Clamp Multimeter TRMS 1000A
NCV-1030-EUR 12PK NCV-1030-EUR VOLTfix	5017162 4918085	Voltfix, Non-Contact Voltage probe dual range with flashlight Non-Contact Voltage (NCV) tester Default: 50-1000 V.	ACD-16 TRWS-PRO ACD-23SW	2730713 3804941	TRMS 400A Swivel clamp w/temp and capacity
1107 1050 2011 1021111	1310003	High Sensitivity: 12-50 V	ACD-45PQ	3730013	600A Power Quality Clamp
NCV-1040-EUR 12PK	5017170	MAGNO-Voltfix, Non-Contact Voltage probe dual range with flashlight	ACD-50NAV	3729945	600 A AC Navigator Clamp
NCV 1040 FUR MACNO	4010007	and magn.sensor	ACD-53NAV	3729977	1000A AC TRMS Navigator Clamp
NCV-1040-EUR MAGNO- VOLTfix	4918097	Non-Contact Voltage (NCV) tester Magnetic solenoid testing	ACD-6 PRO ACDC-100	2730785 2740452	Clamp Meter 1000A Clamp Multimeter 1000A
102.1			ACDC-100 TRMS	2740465	Clamp Multimeter TRMS 1000A ACDC
Sustainable Energy			ACDC-100 TRMS-D	3454615	Clamp Multimeter TRMS 1000A AC/DC
	2/17/1070	Solar Power Meter	ACDC-100-D	3454603	Clamp Multimeter 1000A
SOLAR-100 EV-520-CH	3474979 5022805	Solar Power Meter Test Adapter EV Charging Stations+EVC-20 Cable (Swiss/13)	ACDC-3400 IND ACDC-52NAV	3434889 3729961	Industrial Clamp TRMS 1000A AC/DC 600A AC/DC TRMS Navigator Clamp
EV-520-CH EV-520-D	5008532	Test Adapter EV Charging Stations+EVC-20 Cable (Schuko)	ACDC-52NAV ACDC-54NAV	3729961 3729989	1000A AC/DC TRMS Navigator Clamp
EV-520-F	5022822	Test Adapter EV Charging Stations+EVC-20 Cable (French/E)	ALC-110-EUR	4930890	Leakage current clamp
EV-520-UK	5022810	Test Adapter EV Charging Stations+EVC-20 Cable (UK Socket)	AMP-210-EUR	4560581	AC TRMS Clamp Meter, 600 A, jaw 30 mm
EVA-500-CH	5022846	Test Adapter EV Charging Stations w/ Swiss Socket Type13	AMP-220-EUR	4560596	AC/DC TRMS Clamp Meter, 600 A, jaw 35 mm
EVA-500-D EVA-500-F	5008567 5022868	Test Adapter EV Charging Stations w/ SCHUKO Socket Test Adapter EV Charging Stations w/ French Socket Type E	AMP-25-EUR AMP-310-EUR	4588268 4560603	AC/DC TRMS, Mini Clamp Meter, 300 A, jaw 25 mm AC TRMS Clamp, 600 A, HVAC with Motor Testing, jaw 30 mm
EVA-500-UK	5022854	Test Adapter EV Charging Stations w/ Teletri Socket Type E	AMP-320-EUR	4560605	AC/DC TRMS Clamp Meter 600A Motor Testing, jaw 35 mm
EVC-13	5008580	Test Cable / Connect Charging Station Cable Type1	AMP-330-EUR	4560626	AC/DC TRMS Clamp, 1000 A, Industr.Motor Testing, jaw 51 mm
EVC-20	5022831	Test Cable / Connect Charging Station Receptacle+Cable Type2	CHB15-D	3454457	Clamp Meter AC/DC
CIL WE T	/ 1.	• ,	CHB35-D CT235A	3454469 3026809	Clamp Meter AC/DC Optional Current Transducer
Cable, Wire Tracers, Locate	ors (and Acces	ssories)	CT237B	3511514	Optional Current Transducer  Optional Current Transducer
AF-600-EUR	4994583	A-Frame Fault Locator, UAT-600 Series	LH41A	3030898	Leakage Clamp Meter ACDC
AT-3500	3435058	Underground Wire Tracer	UAT-620-EUR	4994565	Underground Utility Locator Kit w/Clamp
AT-6000-RE AT-6000-TE	4909840 4909857	Receiver, AT-6000-EUR Wire tracer Transmitter, AT-6000-EUR Wire tracer			
AT-6010-EUR	5044669	Advanced Wire tracer w/receiver, transmitter, soft carrying case	Appliance, Installation, E	nergy Testers	
AT-6010-RE	5044678	Receiver, AT-6010 Wire tracer	93530-D	3454416	Megohmmeter
AT-6010-TE	5044684	Transmitter, AT-6010 Wire tracer	DGC-1000A	2731217	Earth Resistance Clamp Meter
AT-6020-EUR	4868002	Advanced multi-function wire tracer	GT-400-D	4380998	Appliance Tester
AT-6030-EUR	4868016	Advanced multi-function wire tracer. Kit includes CT-400-EUR SIGNAL CLAMP	GT-650-CH GT-650-D	5017935 4866881	Appliance tester Appliance tester
AT-7000-RE	4542802	Receiver	GT-900-CH	4866908	Appliance tester
AT-7000-TE	4542816	Transmitter with LED	GT-900-D	4866896	Appliance tester
AT-7020-EUR	4542794	Advanced Wire Tracer w/Receiver, Transmitter, Hard Case	KMP7010	3730256	Earth Resistance Tester
AT-7030-EUR BR-7000C	4542782 4544583	Advanced Wire Tracer with Signal Clamp LI-ION Battery Charger for AT-7000-EUR Transmitter	KMP7020 KMP7021	3730295 3730301	RCD Tester with fast trip RCD Tester with auto ramp
BR-7000-T	4467296	Battery Rechargeable AT-7000-Series, LI-ION, 7.2V, 2.2 AH	KMP7030	3842833	Earth Loop Impedance Tester
CC-6000-EUR	4909869	Carrying Case, Molded, AT-6000-EUR	KMP7036	3730274	Insulation Tester
CC-6010-EUR	5044691	Carrying Case, Soft, AT-6010-EUR	MT204-S	3454632	Machinery tester
CC-7000-EUR CC-UAT-600EUR	4542833 4994620	Carrying Case, foam insert for AT-7000-EUR Series Carrying case, UAT-600 Series	PROINSTALL-100-EUR PROINSTALL-200-EUR	4374504	Telaris Multifunction Installation Tester
CT-400-EUR	4868033	Signal Clamp / 400A Current Transducer	PROINSTALL-75-UK	4374519 4826466	Telaris Multifunction Installation Tester Type B/RCD & Earth Test Multifunction Installation Tester (UK, Ireland only)
FP-UAT-600	4994468	Fuse, 2 pack, UAT-600 Series	1110111511122 75 011	1020 100	mathanetton instantation rester (on, neutral only)
LAN-1	3052401	LAN Cable Tester	Accessories for installation	on and Applian	ce Testers
MLS55-3 SC-3500	3435099 3435073	MLS55-3,Pipe Transmitter for AT-3500 Signal Clamp SC-3500 for AT-3500			
SC-3500 SC-600-EUR	3435073 4994647	Signal Clamp, UAT-600 Series	1240 1241	3313412 3313420	Three-phase adapter 16A Three-phase adapter 32A
SC-7000-EUR	4542825	Current Clamp for AT-7000-EUR Wire Tracer	1312	2390062	Software ES Control Professional 0100
SF100-D	3454312	Fuse finder	1314	2390081	Software es control professional 0701-0702/0113
TL-7000-EUR	4542857	Test lead set for AT-7000 w/alligator clips blk/red, probes blk/red	1316	2390735	Software es control professional Complete
TL-UAT-600	4994446	(accessories) Test leads kit, UAT-600 Series	1311D 1325D	2390055 3223132	Current Clamp Adapter CHB 1 (AC) Barcode-Scanner
UAT-600-RE	4994590	Receiver, UAT-600 Series	1343D	3313514	VLP5 Drehstrom-Verlängerungsprüfadapter
UAT-600-TE	4994601	Transmitter,UAT-600 Series	ADPTR-B15-EUR	4854873	Light Check Adapter
UAT-610-EUR	4994541	Underground Utility Locator Kit	ADPTR-B15-EUR 5PK	5017104	Light-Check Adapter B15, 5 PACK
UAT-620-EUR	4994565	Underground Utility Locator Kit w/Clamp	ADPTR-B22-EUR	4854858	Light Check Adapter
Digital Multimeters			ADPTR-B22-EUR 5PK ADPTR-E14-EUR	5017119 4854864	Light-Check Adapter B22, 5 PACK Light Check Adapter
-			ADPTR-E14-EUR 5PK	5017128	Light-Check Adapter E14, 5 PACK
15XP-B	3534088	Compact, Full-Featured Multimeter	ADPTR-E27-EUR	4854847	Light Check Adapter
30XR-A	2727774	Prof DMM With Tomp And Conscitance	ADPTR-E27-EUR 5PK	5017137	Light-Check Adapter E27, 5 PACK
33XR-A 34XR-A	2727788 2727795	Prof DMM With Temp And Capacitance Prof DMM True-RMS w Temperature & Backlight	ADPTR-GU10-EUR ADPTR-GU10-EUR 5PK	4854886 5017143	Light Check Adapter Light-Check Adapter GU10, 5 PACK
35XP-A	2727849	Compact DMM With Temp, Freq, Capacitance	ADPTR-GUTU-EUR SPR ADPTR-KIT1-EUR	4854835	Light-Check Adapter GUTU, 5 PACK Light-Check Adapter Kit EUR w/Carrying case
37XR-A	2727808	Prof DMM True-RMS w Component Logic Test	ADPTR-PE-EUR	4854900	Socket Check Adapter Schuko PE
38XR-A	2727824	Prof DMM True-RMS w optical PC interface	ADPTR-SCT-EUR	4854899	Socket Check Adapter Schuko
5XP-A	2727851	Compact DMM with Non-Contact Voltage	BC-1250G	4377939	Barcode Scanner für MT-204-S,GT650, GT900
93497D 93523D	3454491 3454478	Hexagon 340A Digital multimeter Hexagon 110 Digital multimeter	DAA-16	2743806	16A 3-Phase CEE Plug W/Banana Jacks
93524D	3454484	Hexagon 120 Digital multimeter  Hexagon 120 Digital multimeter	DAA-32 PA-1	2743850 4362289	3-Phase CEE Plug W/Banana Jacks Adapter for 3-pole plug
AM-500-EUR	4102332	Digital Multimeter	PAT-BRUSH	4151667	Brush probe
AM-510-EUR	4102344	Digital Multimeter	PROINSTALL-CC	4466927	Soft case, carrying strap
AM-520-EUR	4131281	Digital Multimeter	PROINSTALL-TL-D	4466841	LC35 AMP-MFT, Mains test cord, Schuko
AM-535-EUR AM-540-EUR	4701027 4131308	Digital Multimeter TRMS with test leads Digital Multimeter	PROINSTALL-TL-KIT TL-EARTH	4466911 4388671	Remote test probe, installation tester lead set w/probe tips
AM-555-EUR	4701030	Digital Multimeter, TRMS, Dual Display, test leads, temp	TL-EARTH TL-USB	4388671	Earth test accessory kit USB Download Cable for ProInstall Series
DM73C	2727739	Probe Style DMM			
DM78C	3156830	Universal-Multimeter			



Model	ltem number	Description	Model	ltem number	Description
Phase Sequence Meter			Accessories		
PRM-5-EUR	4375961	Phase Sequence Tester with fixed tead leads	1152D	4157093	Adapter Wheel 0.1M for Tachometer
PRM-6-EUR	4633222	Phase Rotation and Motor Testing, LCD display, test leads	1153D	3222793	Test Probe with Cover for Tachometer
			1154D	2145762 4827508	Reflective Strips for Tachometer
Environmental			CABINET KEY HS-1	4594135	Universal key to switch cabinets and closures HS-1 Magnetic Hanger
93517D	3313290	Sound Level Meter			
93560D CM100	3222543 3311826	Digital Luxmeter with data storage Carbon Monoxide Meter	Carrying Cases		
LM-100	3052348	Light Meter Manual Ranging	1150	2145755	Carrying case Nylon
LM-120 MANO2-A	3052353 3477279	Light Meter Auto Ranging Manometer for Differential Pressure	1175 1193	2145796 2145812	Carrying Case for Voltage tester VP-7XX and 2100-series Professional Carrying Case
SM-10	3052366	Sound Meter	CC-ACDC	2732643	Carrying Case
SM-20A SM-CAL1	3477333 3052382	Sound Meter Sound level calibrator	SV-U VC221B	2733511 3068271	Carrying Case Vinyl Carrying Case
TACH-10	3730008	Contact/Non-Contact Tachometer	VC30A	3068280	Carrying Case
TACH20	3311961	Tachometer			
TMA10A TMA-21HW	2817785 3730239	Anemometer with Flexible Precision Vane Hot Wire Anemometer	Software		
TMA40-A	3477287	Anemometer with temperature and RH function	38SW-A	2727813	RS232 Software/Cable
TMA5 TMULD-300	3503169 2731543	Mini-vane Anemometer Ultrasonic Leak Detector Kit	DL-SW-KIT TM-SWA	4597359 3027085	Download software + cable for installation tester ProInstall RS232 Software and Cable for TMD90A and TMA10A
TX900	3390352	Microwave leakage detector	USB-KIT2	3804929	Download Module for Clamps
ULD-300	2734431	Ultrasonic Leak Detector		_	
UT-300	2734446	Ultrasonic Transmitter	Fuses		
Temperature/Humidity			FP100	1990707	Fuse Pack (2x 10 A/1000 V)
1032D	2145689	Thermal Conductivity Pase 30 g	FP125 FP160	1561550 1990718	Fuse Pack (4x 0.1 A/250 V) Fuse Pack (2x 10 A/600 V)
5790D	3313229	Temperature Probe Type 111 Flexible Wire Probe	FP200	2095180	Fuse Pack (2x 2 A/1000 V)
5793D	3313234	Temperature Probe Typ 106 Needle Probe	FP300 FP375	1990688 1561610	Fuse Pack (4x 0.315 A/1000 V) Fuse Pack (4x 0.25 A/500 V)
5794D 5795D	2147186 2147199	Unitest 104 Liquid Probe Unitest 101 Surface Probe	FP400	1561631	Fuse Pack (4x 10 A/600 V)
5797D	3313241	Temperature Probe Typ 110 Fast Response Probe	FP410	3368658	Fuse 11 A/1000V
IR-450-EUR IR608A	4308539 3015690	Mini IR-Thermometer with flashlight/laser pointer Infrared Thermometer Laser Pointer	FP425 FP500	1561646 1990695	Fuse Pack (2x 20 A/600 V) Fuse Pack (4x 0.5 A/1000 V)
IR-710-EUR	4308480	Infrared Thermometer (10:1)	FP520	3157013	Fuse Pack (2x 0.5 A/500 V)
IR-720-EUR	4308500	Infrared Thermometer (20:1)	FP600	1565777	Fuse Pack (2x 15 A/600 V)
IR-730-EUR IR-750-EUR	4308517 4308521	Infrared Thermometer (30:1) Infrared Thermometer (50:1)	FP700 FP900	2637713 2278800	Fuse Pack (2x 2 A/1500 V) for HD160C Fuse Pack (2x 200 mA/600 V)
IRC-110-EUR	4909794	Infrared Camera			
IRC-120-EUR MT-10	4989024 3503178	Infrared Camera Moisture Meter			
TH-1	3311871	Temperature Meter (Probe Style)			
TH-3	3027060	Relative Humidity and Temp Meter			
THWD-3 TMD-50	3033042 3730150	Relative Humidity and Temp Meter Thermometer TMD-50, Typ K			
TMD-53	3730085	Thermometer TMD-53, Type K/J			
TMD-56 TPK-59	3730138 2733660	Thermometer TMD-56, Typ K/J/T/E Datalogger, USB Thermocouple, Dual Banana			
TPK-60	3503184	Optional external temperature probe			
TPK-62	4160703	TPK-62 Temperature Adapter and			
TPP1-C1	2826634	2 thermocouples,-40 to 1000 °C Pocket Thermometer Probe; Immersion			
TPP2-C1	2826652	Pocket Thermometer Probe; Surface			
TR200-A TR300	3477302 3311844	Temperature/RH Data Logger with Digital Display 133.00 Temperature and Relative Humidity Data Logger			
		. 1	_		
Accessories - Test leads	and Probes				
307111	2146495	Test Leads SML 4W Red 1000 mm			
307112 307121	3313550 2146508	Test Leads SML 4W Red 200 mm Test Leads SML 4W Black 1000 mm			
307122	3313561	Test Leads SML 4W Red 2000 mm			
370000	2146653	Electrician Set			
370001 370003	3313577 2146666	Electrian-Set Safety-Set IEC 61012			
370004	2146675	PSK 2 - Set Red/Black			
370008 370010	2146694 2146701	PSS 2 - Set Red/Black SKP 41 - Set Red/Black			
370010	2146712	KS 4 L - Set Red/Black			
370014	2406445	Unitest Accessory Inst-Set Black/Blue/Green			
370016 370024	2406489 2146758	Unitest Accessory Machine Set Red/Black HCP 41 - Set Red/Black			
390450	2406492	Mini Clamp 2 mm Red			
390451 391511	2406509 2146861	Mini Crocodile Clamp 2mm, Black Clamp-Type Test Probe Current Tracks 155 mm black			
391512	2146877	Clamp-Type Test Probe Current Tracks 155 mm red			
1306D	3313458	Professional Test Lead Kit Silicon			
1307D 1324D	2146176 2146183	Test Lead Set 4 mm Silicon Accessory Set Unidreh			
DL243D	3026853	Test Lead Kit			
DL248D EU-200	3026866 2745046	Test Lead Kit, Delux Test Lead Set for AT-2000 & AT-1000			
MT5-LEADS	2743046	ISO Test Test Lead Kit (AMB-5KV-D)			
MTL-45	2733119	Test Leads (AMB-45)			
TL1500 TL-300	2696277 4588279	Test Leads With Alligator Clips Test Leads, Crocodile Clips (3 colors), themocouple, case			
TL35B	3068232	Test Leads with Alligator Clips			
	3034444	Test Leads with Alligator Clips			
TL36A	4634044				
TL36A TL-7000-25M	4634011 3068244	Test Lead, 25 meter long Ground Lead with Alligator Clip (DM73C)			
TL36A TL-7000-25M TL73C TL-GT07XX	3068244 3504418	Ground Lead with Alligator Clip (DM73C) Test lead			
TL36A TL-7000-25M TL73C	3068244	Ground Lead with Alligator Clip (DM73C)			





**Beha-Amprobe®**Division of Fluke Corp. (USA) c/o Fluke Europe BV

Fluke Deutschland GmbH In den Engematten 14 79286 Glottertal, Germany Tel. +49 (0) 7684 - 8009-0 info@beha-amprobe.de beha-amprobe.de

Fluke Europe BV Science Park Eindhoven 5110 NL-5692 EC Son The Netherlands Tel. +31 (0) 40 267 51 00 beha-amprobe.com Fluke Precision Measurement Ltd. 52 Hurricane Way NR6 6 JB United Kingdom e-mail: info@beha-amprobe.co.uk beha-amprobe.com © 2019 Fluke Corporation All rights reserved. 6011940A-EN

Specifications subject to change without notice.