



Test Tools Catalog 2010

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Quality and service beyond compare

Our Customers

Throughout the past 50 plus years, the Amprobe® name has become synonymous with clamp-on meters, to the point where it is commonly used as a generic term for such. Yet the brand has expanded its product offering to now over 250 items and has become an established leader in quality test equipment for professionals in the electrical, maintenance, construction, and HVAC markets.

Our products

The products shown in this catalog include an extensive selection of portable multimeters, clamp meters, power quality analyzers, circuit tracers as well as component checkers, HVAC testers and specialty tools such as electrical testers. Also shown is a complete selection of accessories.

Our distributors

The products shown in this catalog are sold and supported by a worldwide network of Amprobe distributors and dealers. Should you require any assistance or have questions about our products or their applications, these local dealers stand ready to serve you.



No hassle warranty

No waiting.

No shipping charges.

Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that a Amprobe Test Tools requires warranty service, any of our local dealers are authorized to replace it, on the spot.

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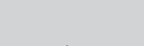
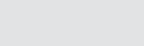
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Current Clamps

Model	AC40B	AD40B	AC71B	AC75B	ACD-6 PRO	ACD-10 PLUS	ACD-14 PLUS	ACD-14 TRMS-PLUS	ACD-15 TRMS-PRO	ACD-16 TRMS-PRO
Page	4	4	5	5	6	6	7	7	7	8
										
Max. current	400 A	400 A	600 A	600 A	1000 A	600 A	400 A	400 A	2000 A	1000 A
Type of current	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC
True RMS measurement								•	•	•
Display	3¾-digit, 3999 Digits	3¾-digit, 3999 Digits	3¾-digit, 6000 Digits	3¾-digit, 4000 Digits	3¾-digit, 4000 Digits	3¾-digit, 4000 Digits	3¾-digit, 4000 Digits	3¾-digit, 4000 Digits	3¾-digit, 6000 Digits	3¾-digit, 6000 Digits
AC current	0,01 A... 400 A	0,01 A... 400 A	0,1 A... 600 A	0,1 A... 600 A	0,1 A... 1000 A	0,01 A... 600 A	0,01 A... 400 A	0,01 A... 400 A	0,1 A... 2000 A	0,01 A... 1000 A
Basic accuracy*	1,5% + 10 Digit	1,5% + 10 Digit	1,9% + 2 Digit	1,9% + 5 Digit	1,5% + 3 Digit	1,5% + 8 Digit	1,9% + 8 Digit	1,9% + 8 Digit	1,5% + 5 Digit	1,0% + 5 Digit
Frequency range	50...400 Hz	50...400 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50...500 Hz
DC current										
Basic accuracy*										
AC voltage	0,1 V... 600 V		1,3 V... 750 V	0,001 V... 750 V	1,0 mV... 600 V	0,001 V... 600 V	0,001 V... 600 V	0,001 V... 600 V	0,001 V... 600 V	0,1 V... 600 V
Basic accuracy*	1,5% + 10 Digit		1,5% + 3 Digit	1,5% + 5 Digit	1,7% + 3 Digit	1,5% + 5 Digit	1,5% + 5 Digit	1,5% + 5 Digit	1,5% + 5 Digit	1,0% + 5 Digit
Frequency range	50...400 Hz			50...500 Hz	50...400 Hz	50...500 Hz	50...400 Hz	50...400 Hz	50...500 Hz	50...500 Hz
DC voltage	0,1 V... 600 V		2,1 V... 1000 V	0,001 V... 1000 V	0,001 V... 600 V	0,1 mV... 600 V	0,1 V... 600 V	0,1 V... 600 V	0,001 V... 600 V	0,1 V... 600 V
Basic accuracy*	1,2 % + 10 Digit		1 % + 2 Digit	0,9 % + 2 Digit	2,0% + 3 Digit	0,5% + 3 Digit	0,5 % + 3 Digit	0,5 % + 3 Digit	1 % + 5 Digit	0,5 % + 5 Digit
Resistance	0,1 Ω... 400 Ω		0 Ω... 9999 Ω	0,1 Ω... 40,00 Ω	0,1 Ω... 40,00 MΩ	0,1 Ω... 40,00 MΩ	0,1 Ω... 40,00 MΩ	0,1 Ω... 40,00 MΩ	0,001 kΩ... 6,000 MΩ	0,1 Ω... 999,9 Ω
Basic accuracy*	1% + 5 Digit		2% + 2 Digit	1,0 % + 2 Digit	1,0% + 4 Digit	1,0% + 4 Digit	0,8% + 6 Digit	0,8% + 6 Digit	1,0% + 4 Digit	1,0% + 6 Digit
Continuity test	R < 40 Ω		R < 25 Ω	R < 200 Ω	R < 120 Ω	R < 120 Ω	R < 120 Ω	R < 120 Ω	R < 300 Ω	R < 300 Ω
Frequency measurement						•	0,001 Hz... 100 kHz	0,001 Hz... 100 kHz	1 Hz... 30 kHz	5,00 Hz... 500,0 Hz
Power measurement										
Data Hold	•	•	•	•	•	•	•	•	•	•
MIN/MAX Hold						-/*	•	•	•	•
Capacitance measurement				•		•	•	•	•	
Jaw opening	25 mm	25 mm	32 mm	35 mm	45 mm	25 mm	26 mm	26 mm	45 mm	45 mm
Power supply	2 x 1.5 V, IEC LR03	2 x 1.5 V, IEC LR03	1 x 9 V, IEC 6LR61	1 x 9 V, IEC 6LR61	1 x 3 V, IEC-CR2032	1 x 3 V, IEC-CR2032	2 x 3 V, IEC-CR2032	2 x 3 V, IEC-CR2032	2 x 1.5 V, IEC LR03	2 x 1.5 V, IEC LR03
Auto power-off	•	•	•	•	•	•	•	•	•	•
Measurement category	CATIII/600V	CATIII/600V	CATIII/1000V CATIII/600V	CATIII/600V CATIII/1000V	CATIII/600V	CATIII/600V	CATIII/600V	CATIII/600V	CATIII/600V	CATIII/600V
Special features			Backlight	A measurement range for direct measurement of ionisation currents in heating systems, Temperature measurement Backlight		Thin jaws, Inrush current measurement	2000 µA measurement range for direct measurement of ionisation currents in heating systems	2000 µA measurement range for direct measurement of ionisation currents in heating systems, True RMS measurement	Contactless voltage detection Backlight	Internal data logger for 5400 readings and RS-232 interface, Temperature measurement Backlight

Model	AC68C	ACDC-100	ACDC-100 TRMS	ACDC-400	ACDC-3400 IND	ACDC-3300 IND	ACD-31P	ACD-56HPQ	AC50A	LH41A
Page	8	9	9	9	10	10	10	11	11	12
										
Max. current	600 A	800 AAC/1000 ADC	800AAC/1000ADC	400 A	1000 A	1000 A	1000 A	400 A	60 A	40 A
Type of current	AC/DC	AC/DC	AC/DC	AC/DC	AC/DC	AC	AC	AC	AC	AC
True RMS measurement	•		•		•	•	•	•		
Display	3 1/2-digit, 3999 Digits	3 1/2-digit, 4000 Digits	3 1/2-digit, 4000 Digits	3 1/2-digit, 3999 Digits	3 1/2-digit, 6600 Digits	3 1/2-digit, 6600 Digits	4-digit, 9999 Digits	4-digit, 9999 Digits	3 1/2-digit, 3999 Digits	4000 Digits
Current AC	0,1 A...600 A	0,1 A...800 A	0,1 A...800 A	0,01 A...400 A	0,1 A...1000 A	0,1 A...1000 A	0,01...1000 A	0,1...399,9 A	0,01 A...60 A	0,001 A...40 A
Basic accuracy*	2 % + 5 Digit	1,5% + 5 Digit	1,5% + 5 Digit	1,5% + 3 Digit	2 % + 10 Digit	2 % + 10 Digit	1 % + 5 Digit	1 % + 3 Digit	1,5% + 5 Digit	1,3% + 5 Digit
Frequency range	40...450Hz	40...200 Hz	40...200 Hz	50/60 Hz	50...1 kHz	50...1 kHz	50 Hz...3 kHz	40Hz...400 Hz	40 Hz...1 kHz	40...400 Hz
Current DC	0,1 A...600 A	0,1 A...1000 A	0,1 A...1000 A	0,01 A...400 A	0,1 A...1000 A					0,001...40 A
Basic accuracy*	2 % + 5 Digit	1,5% + 4 Digit	1,5% + 4 Digit	1,5% + 3 Digit	2 % + 5 Digit					1,3% + 5 Digit
AC voltage	0,1 V...600 V	0,1 mV...600 V	0,1 mV...600 V	0,1 mV...600 V	0,1 mV...750 V	0,1 mV...750 V	0,1...600 V	0,1...600 V	0,1 V...400 V	
Basic accuracy*	1,2 % + 10 Digit	1% + 4 Digit	1% + 4 Digit	1% + 3 Digit	1,5% + 8 Digit	1,5% + 8 Digit	0,5 % + 5 Digit	3 % + 3 Digit	2% + 4 Digit	
Frequency range	40...450Hz	50...500 Hz	50...500 Hz	50...500 Hz	50 Hz...1 kHz	50 Hz...1 kHz	50 Hz...3 kHz	40 Hz...400 Hz	40 Hz...1 kHz	
DC voltage	0,1 V...600 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	0,1...600 V	0,1...600 V		
Basic accuracy*	0,75 % + 2 Digit	0,5 % + 3 Digit	0,5 % + 3 Digit	0,8 % + 2 Digit	0,5% + 2 Digit	0,5% + 2 Digit	0,5 % + 5 Digit	1 % + 3 Digit		
Resistance	1 Ω...4 kΩ	0,1 Ω...40 MΩ	0,1 Ω...40 MΩ	0,1 Ω...40 MΩ	0,1 Ω...66,00 MΩ	0,1 Ω...66,00 MΩ	0,1 Ω...999,9 Ω	0,1 Ω...1999 Ω	0,1 Ω...400 Ω	
Basic accuracy*	1,0% + 5 Digit	0,8% + 6 Digit	0,8% + 6 Digit	1% + 3 Digit	1% + 5 Digit	1% + 5 Digit	1 % + 6 Digit	1 % + 5 Digit	1 % + 2 Digit	
Continuity test	R < 40 Ω	R < 120 Ω	R < 120 Ω	R < 40 Ω	R < 30 Ω	R < 30 Ω	R < 300 Ω	R < 300 Ω	R < 40 Ω	
Frequency measurement	1 Hz...20 kHz				0,01 Hz...1000 MHz	0,01 Hz...1000 MHz	5,00 Hz...500,0 Hz	40,0 Hz...399,9 Hz		
Power measurement							•	•		
Data Hold	•	•	•	•	•	•	•	•	•	
MIN/MAX/PEAK Hold				•				•	•	
Capacitance measurement					0,001 nF...6,6 mF	0,001 nF...6,6 mF				
Jaw opening	40 mm	50 mm	50 mm	30 mm	51 mm	51 mm	45 mm	30 mm	30 mm	19 mm
Power supply	1 x 9 V, IEC 6LR61	2 x 1,5 V, IEC LR03	2 x 1,5 V, IEC R03	2 x 1,5 V, IEC R03	1 x 9 V, IEC 6F22	1 x 9 V, IEC 6F22	2 x 1,5 V, IEC LR03	2 x 1,5 V, IEC LR03	2 x 1,5 V, IEC LR6	1 x 9 V, IEC 6LR61
Auto-Power-Off		•	•	•	•	•	•	•	•	•
Measurement category	CATIII/600V	CATIII/600V	CATIII/600V	CATIII/600V	CATIII/1000V, CATIV/600V	CATIII/1000V, CATIV/600V	CATIII/600V	CATIII/600V	CATIII/600V	CATIII/600V
Special features		Measurement of inrush current	Measurement of inrush current, TRMS measurement	Backlight	Relative Zero Backlight	Temperature Measurement Backlight	RS-232 interface, power, cos φ	Harmonics measurement, peak value measurement, power, cos φ	Leakage current clamp meter, minimum resolution 0.01 mA	Measurement of DC currents 1mA resolution

Current Clamps (AC)



AD40B Mini-current clamp up to 400 A AC

- Functions**
- Current measurement
- Product information**
- Automatic range selection
 - Integrated measurement memory (data hold)
 - Additional bar graph display
 - Auto power-off
 - Jaw opening: approx. 25 mm

Technical Data	
Display:	LCD, 3 3/4-digit, 3999 digits
Measurement ranges	
Current AC:	0.01-400 A
Basic accuracy:	±(1.5% rdg. + 10 digits)
Frequency range	
for AC:	50-400 Hz
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	25 mm
Power supply:	2 x battery, 1.5 V, IEC LR03
Dimensions:	64 x 190 x 36 mm
Weight:	approx. 280 g

Scope of supply:

- 1 x AD40B
- 2 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual



Accessories:

Carrying case **SV-U**

Ordering Information:

Description	Order No.
AD40B	2727928
SV-U	2733511



AC40B Mini-current clamp up to 400 A AC

- Functions**
- Current measurement
 - AC and DC voltage measurement
 - Resistance measurement
 - Continuity test with beeper
- Product information**
- Automatic range selection
 - Integrated measurement memory (data hold)
 - Additional bar graph display
 - Auto power-off
 - Jaw opening: approx. 25 mm

Technical Data	
Display:	LCD, 3-3/4-digit, 3999 digits
Measurement ranges	
Current AC:	0.01-400 A
Basic accuracy:	±(1.5% rdg. + 10 digits)
AC voltage:	0.1-600 V
Basic accuracy:	±(1.5% rdg. + 10 digits)
DC voltage:	0.1-600 V
Basic accuracy:	±(1.2% rdg. + 10 digits)
Continuity:	R < 40 Ω
Resistance:	0.1-400 Ω
Basic accuracy:	±(1% rdg. + 5 digits)
Frequency range for alternating	
current/voltage:	50-400 Hz
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	25 mm
Power supply:	2 x battery, 1.5 V, IEC LR03
Dimensions:	64 x 190 x 36 mm
Weight:	approx. 280 g

Scope of supply:

- 1 x AC40B
- 2 x test leads
- 2 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual



Accessories:

Carrying case **SV-U**



Test lead set **TL245A**

Ordering Information:

Description	Order No.
AC40B	2727904
SV-U	2733511
TL245A	3034444



AC71B Current clamp (AC) with auto-automatic function up to 600 A AC

Functions

- Current measurement
- AC and DC voltage measurement
- Resistance measurement
- Continuity test with beeper

Product information

- Automatic range selection
- Integrated measurement memory (data hold)
- Backlight
- Jaw opening: approx. 32 mm
- Auto power-off

Product highlights

- AutoTest automatic function (selects AD/DC voltage and resistance)
- Backlight

Technical Data

Display:	LCD, 3 1/4-digit, 6000 digits
Measurement ranges	
Current AC:	0.1-600 A
Basic accuracy:	±(1.9% rdg. + 2 A)
Frequency range:	50/60 Hz
AC voltage:	1.3-750 V
Basic accuracy:	±(1.5% rdg. + 3 digits)
DC voltage:	2.1-1000 V
Basic accuracy:	±(1% rdg. + 2 digits)
Continuity:	R < 25 Ω
Resistance:	0-9999 Ω
Basic accuracy:	±(2% rdg. + 2 digits)
Pollution degree:	2
Measurement category:	CAT II/1000V, CAT III/600V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	ø 32 mm
Power supply:	1x battery, 9 V, IEC 6LR61
Dimensions:	84 x 212 x 40 mm
Weight:	approx. 390 g

Scope of supply:

- 1 x AC71B
- 2 x test leads
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Carrying case SV-U



Test lead set TL245A

Ordering Information:

Description	Order No.
AC71B	2727872
SV-U	2733511
TL245A	3034444



AC75B Current clamp up to 600 A AC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper
- Diode test
- Capacitance measurement
- Temperature measurement

Product information

- Automatic range selection
- Integrated measurement memory (data hold)
- Jaw opening: 35 mm
- Auto power-off

Product highlights

- A measurement range for direct measurement of ionisation currents in heating systems
- Backlight

Technical Data

Display:	LCD, 3 1/4-digit, 4000 digits
Measurement ranges	
Current AC:	0.1-600 A
Basic accuracy:	±(1.9% rdg. + 5 digits)
Frequency range:	50/60 Hz
Ionisation current AC/DC:	0.1-4000 A
AC voltage:	0.001-750 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50-500 Hz
DC voltage:	0.001-1000 V
Basic accuracy:	±(0.9% rdg. + 2 digits)
Continuity:	R < 200 Ω
Resistance:	(0.1-40.00 MΩ)
Basic accuracy:	±(1.0% rdg. + 2 digits)
Capacitance measurement:	0.001 nF to 4.000 mF
Temperature measurement:	-40°C to 400°C
Pollution degree:	2
Measurement category:	CAT III/600 V, CAT II/1000 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	ø 35 mm
Power supply:	1 x battery, 9 V, IEC6LR61
Dimensions:	84 x 212 x 40 mm
Weight:	approx. 390 g

Scope of supply:

- 1 x AC75B
- 2 x test leads
- 1 x 9 V battery, IEC 6LR61
- 1 x carrying case
- 1 x user manual



Accessories:

Carrying case SV-U



Test lead set TL245A

Ordering Information:

Description	Order No.
AC75B	2727885
SV-U	2733511
TL245A	3034444

Current Clamps (AC)



ACD-6 PRO Current clamp up to 1000 A AC

- Functions**
- Current, voltage and resistance measurement
 - Continuity test with beeper
 - Diode test
- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - Relative measurement
 - Jaw opening: 45 mm
 - Auto power-off
- Product highlights**
- Large, easily readable LCD display
 - Exceptional price/performance ratio

Technical Data	
Display:	LCD, 3 3/4-digit, 4000 digits
Measurement ranges	
Current AC:	0.1-1000 A
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50/60 Hz
AC voltage:	1.0-600.0 V
Basic accuracy:	±(1.7% rdg. + 3 digits)
Frequency range:	50-400 Hz
DC voltage:	0.001-600.0 V
Basic accuracy:	±(2.0% rdg. + 3 digits)
Continuity:	R < 120 Ω
Resistance:	(0.1-40.00 MΩ)
Basic accuracy:	±(1% rdg. + 4 digits)
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	45 mm
Power supply:	1 x battery, 3 V, IEC CR2032
Dimensions:	224 x 78 x 40 mm
Weight:	approx. 200 g

Scope of supply:

- 1 x ACD-6 PRO
- 2 x test leads
- 1 x 3 V battery, CR 2032
- 1 x carrying case
- 1 x user manual



Accessories:

Carrying case SV-U



Test lead set TL245A

Ordering Information:

Description	Order No.
ACD-6 PRO	2730785
SV-U	2733511
TL245A	3034444



ACD-10 PLUS Current clamp up to 600 A AC

- Functions**
- Current, voltage and resistance measurement
 - Continuity test with 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**
- Thin jaws

Technical Data	
Display:	LCD, 3 3/4-digit, 4000 digits
Measurement ranges	
Current AC:	0.01-600 A
Basic accuracy:	±(1.5% rdg. + 8 digits)
Frequency range:	50/60 Hz
AC voltage:	0.001-600 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50-500 Hz
DC voltage:	0.1-600 V
Basic accuracy:	±(0.5% rdg. + 3 digits)
Continuity:	R < 120 Ω
Resistance:	(0.1-40.00 MΩ)
Basic accuracy:	±(1.0% rdg. + 4 digits)
Frequency measurement:	0.001 Hz to 100 kHz
Capacitance measurement:	0.1 nF to 3000 µF
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	25 mm
Power supply:	1 x 3 V battery, IEC CR2032
Dimensions:	190 x 63 x 32 mm
Weight:	approx. 150 g

Scope of supply:

- 1 x ACD-10 PLUS
- 2 x test leads
- 1 x 3 V battery, IEC CR2032
- 1 x carrying case
- 1 x user manual



Accessories:

Carrying case SV-U



Test lead set TL245A

Ordering Information:

Description	Order No.
ACD-10 PLUS	3037808
SV-U	2733511
TL245A	3034444



ACD-14 PLUS Current clamp with dual display up to 400 A AC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper
- Capacitance and frequency measurement
- Temperature measurement
- Measurement of inrush current

Product information

- Automatic range selection
- Integrated measurement memory (data hold and MAX hold)
- Jaw opening: 26 mm
- Auto power-off

Product highlights

- Dual display
- A measurement range for direct measurement of ionisation currents in heating systems

ACD-14 TRMS-PLUS True RMS current clamp with dual display (AC)

As ACD-14 PLUS, but with:

- True RMS measurement (TRMS)

Scope of supply:

- 1 x ACD-14 PLUS or ACD-14 TRMS-PLUS
- 2 x test leads
- 2 x 3 V battery, CR 2032
- 1 x temperature probe
- 1 x carrying case
- 1 x user manual

Accessories:

Carrying case **SV-U**

Test lead set **TL245A**

Technical Data

Display:	LCD, 3 1/4-digit, 4000 digits
Measurement ranges	
Current AC:	0.01-400 A
Basic accuracy:	±(1.9% rdg. + 8 digits)
Frequency range:	50/60 Hz
Ionisation current AC/DC:	0.1-2000 µA
AC voltage:	0.001-600 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50-400 Hz
DC voltage:	0.1-600 V
Basic accuracy:	±(0.5% rdg. + 3 digits)
Continuity:	R < 120 Ω
Resistance:	(0.1-40.00 MΩ)
Basic accuracy:	±(0.8% rdg. + 6 digits)
Frequency measurement:	0.001 Hz to 100 kHz
Capacitance measurement:	0.1 nF to 3000 µF
Temperature:	-20°C to 300°C
Basic accuracy:	±(2% rdg. + 3°C)
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	26 mm
Power supply:	2 x 3 V battery, IEC CR2032
Dimensions:	190 x 63 x 32 mm
Weight:	approx. 200 g

Ordering Information:

Description	Order No.
ACD-14 PLUS	3086905
ACD-14 TRMS-PLUS	3086910
SV-U	2733511
TL245A	3034444



ACD-15 TRMS-PRO Current clamp up to 2000 A AC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper
- Diode test
- Capacitance and frequency measurement

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Jaw opening: 45 mm
- Auto power-off

Product highlights

- True RMS measurement (TRMS)
- Non-contact voltage detection
- AutoTect™ function (automatic detection of current, voltage or resistance measurement)
- Backlight

Technical Data

Display:	LCD, 3 1/4-digit, 6000 digits
Measurement ranges	
Current AC:	0.1-2000 A
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50/60 Hz
AC voltage:	0.001-600 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50-500 Hz
DC voltage:	0.001-600 V
Basic accuracy:	±(1% rdg. + 5 digits)
Continuity:	R < 300 Ω
Resistance:	0.001 kΩ to 6.000 MΩ
Basic accuracy:	±(1.0% rdg. + 4 digits)
Frequency measurement:	10 Hz to 1 kHz
Capacitance measurement:	0.1 nF to 2000 µF
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	45 mm
Power supply:	2 x 1.5 V battery, AAA IEC LR03
Dimensions:	224 x 78 x 40 mm
Weight:	approx. 220 g

Scope of supply:

- 1 x ACD-15 TRMS-PRO
- 2 x test leads
- 2 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual



Accessories:

Carrying case **SV-U**



Test lead set **TL245A**

Ordering Information:

Description	Order No.
ACD-15 TRMS-PRO	2730690
SV-U	2733511
TL245A	3034444

Current Clamps (AC) and (AC/DC)



ACD-16 TRMS-PRO True RMS current clamp with data logger up to 1000 A AC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper
- Frequency measurement
- Temperature measurement

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Jaw opening: 45 mm
- Auto power-off

Product highlights

- True RMS measurement (TRMS)
- Internal data logger for 5400 readings and RS-232 interface
- Backlight

Technical Data

Display:	LCD, 3 3/4-digit, 6000 digits
Measurement ranges	
Current AC:	0.01-1000 A
Basic accuracy:	±(1.0% rdg. + 5 digits)
Frequency range:	50-500 Hz
AC voltage:	0.1-600 V
Basic accuracy:	±(1.0% rdg. + 5 digits)
Frequency range:	50-500 Hz
DC voltage:	0.1-600 V
Basic accuracy:	±(0.5% rdg. + 5 digits)
Continuity:	R < 300 Ω
Resistance:	0.1-999.9 Ω
Basic accuracy:	±(1.0% rdg. + 6 digits)
Frequency measurement:	5.00-500.0 Hz
Temperature measurement:	-50°C to 300°C
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	45 mm
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	224 x 78 x 40 mm
Weight:	approx. 220 g

Scope of supply:

- 1 x ACD-16 TRMS-PRO
- 2 x test leads
- 2 x 1.5 V battery, IEC LR03
- 1 x temperature probe
- 1 x carrying case
- 1 x user manual



Accessories:

PC software and RS-232 cable
RS-232 Kit2



Test lead set TL245A

Ordering Information:

Description	Order No.
ACD-16 TRMS-PRO	2730713
RS-232 Kit 2	2733445
TL245A	3034444



AC68C Current clamp TRMS up to 600 A AC/DC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper
- Frequency measurement
- Peak value measurement

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Jaw opening: 40 mm

Product highlights

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

Technical Data

Display:	LCD, 3-3/4-digit, 3999 digits
Measurement ranges	
Current AC:	0.1-600 A
Basic accuracy:	±(2% rdg. + 5 digits)
Frequency range:	40-450 Hz
Current DC:	0.1-600 A
Basic accuracy:	±(2% rdg. + 5 digits)
AC voltage:	0.1-600 V
Basic accuracy:	±(1.2% rdg. + 10 digits)
Frequency range:	40-450 Hz
DC voltage:	0.1-600 V
Basic accuracy:	±(0.75% rdg. + 2 digits)
Continuity:	R < 40 Ω
Resistance:	1 Ω to 4 kΩ
Basic accuracy:	±(1% rdg. + 5 digits)
Frequency measurement:	1 Hz to 20.00 kHz
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	ø 40 mm
Power supply:	1x 9 V battery, IEC 6F22
Dimensions:	76 x 228 x 39 mm
Weight:	approx. 465 g

Scope of supply:

- 1 x AC68C
- 2 x test leads
- 1 x 9 V battery, IEC 6F22
- 1 x carrying case
- 1 x user manual



Accessories:

Test lead set TL245A

Ordering Information:

Description	Order No.
AC68C	2727919
TL245A	3034444



ACDC-100 Current clamp up to 1000 A AC/DC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper
- Measurement of inrush current (30 ms)

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Jaw opening: 50 mm
- Auto power-off

Product highlights

- Large, clear display

ACDC-100 TRMS TRMS current clamp up to 1000 A AC/DC

As ACDC-100 but with:

- True RMS measurement (TRMS)

Technical Data

Display:	LCD, 3 1/4-digit, 4000 digits
Measurement ranges	
Current AC:	0.1-800 A
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	40-200 Hz
Current DC:	0.1-1000 A
Basic accuracy:	±(1.5% rdg. + 4 digits)
AC voltage:	0.1 mV to 600 V
Basic accuracy:	±(1% rdg. + 4 digits)
Frequency range:	50-500 Hz
DC voltage:	0.1-600 V
Basic accuracy:	±(0.5% rdg. + 3 digits)
Continuity:	R < 120 Ω
Resistance:	(0.1-40.00 MΩ)
Basic accuracy:	±(0.8% rdg. + 6 digits)
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	50 mm
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	227 x 78 x 40 mm
Weight:	approx. 290 g

Scope of supply:

- 1 x ACDC-100 or ACDC-100 TRMS
- 2 x test leads
- 1 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual



Accessories:

- Test lead set TL245A

Ordering Information:

Description	Order No.
ACDC-100	2740452
ACDC-100 TRMS	2740465
TL245A	3034444



ACDC-400 Current clamp up to 400 A AC/DC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold, MIN/MAX)
- Relative measurement
- Additional bar graph display
- Jaw opening: 30 mm
- Auto power-off

Product highlights

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

Technical Data

Display:	LCD, 3 1/4-digit, 3999 digits
Measurement ranges	
Current AC:	0.01 A... 400 A
Basic accuracy:	± (1.5% rdg. + 3 digits)
Frequency range:	50/60 Hz
Current DC:	0.01 A... 400 A
Basic accuracy:	± (1.5% rdg. + 3 digits)
AC voltage:	0.1 mV...600 V
Basic accuracy:	± (1% rdg. + 3 digits)
Frequency range:	50...500 Hz
DC voltage:	0.1 mV...600 V
Basic accuracy:	± (0.8 % rdg. + 2 digits)
Continuity:	R < 40 Ω
Resistance:	0.1 Ω... 40 MΩ
Basic accuracy:	± (1% rdg. + 3 digits)
Pollution degree:	2
Measurement category:	CAT III / 600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	30 mm
Power supply:	2 x Battery 1,5 V, IEC LR03
Dimensions:	205 x 64 x 39 mm
Weight:	approx. 280 g

Scope of supply:

- 1 x ACDC-400
- 2 x test leads
- 2 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual



Accessories:

- Test lead set TL245A

Ordering Information:

Description	Order No.
ACDC-400	2730810
TL245A	3034444

Current Clamps (AC/DC)



ACDC-3400 IND CAT IV Industrial True RMS Clamp Meter up to 1000 A AC/DC

- Functions**
- Current, voltage and resistance measurement
 - Continuity test with beeper
 - Frequency measurement
 - Peak value measurement
 - Duty Cycle
- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - Bargraph
 - Backlight
 - Auto Power Off
 - Relative Zero
 - Jaw opening: 51 mm
- Product highlights**
- True RMS measurement (TRMS)

Technical Data	
Display:	LCD, 3 ¹ / ₄ -digit, 6600 digits
Measurement ranges	
Current AC:	0.1-1000 A
Basic accuracy:	±(2% rdg. + 10 digits)
Frequency range:	50 Hz - 1 kHz
Current DC:	0.1-1000 A
Basic accuracy:	±(2% rdg. + 5 digits)
AC voltage:	0.1mV - 750 V
Basic accuracy:	±(1.5% rdg. + 8 digits)
Frequency range:	50 Hz - 1 kHz
DC voltage:	0.1mV -1000 V
Basic accuracy:	±(0.5% rdg. + 2 digits)
Continuity:	R < 30 Ω
Resistance:	0,1 Ω - 66,00 MΩ
Basic accuracy:	±(1% rdg. + 5 digits)
Frequency measurement:	0,01 Hz - 1.000 MHz
Capacitance:	0,001nF..6.6 mF
Duty Cycle:	5.0 % - 95.0 %
Pollution degree:	2
Measurement category:	CAT III 1000V, CAT IV 600V,
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	ø 51 mm
Power supply:	1x 9 V battery, IEC 6F22
Dimensions:	283 x 105 x 50 mm
Weight:	approx. 560g

Scope of supply:

- 1 x ACDC-3400 IND or ACD-3300 IND
- 2 x test leads
- 1x 9 V battery, IEC 6F22
- 1 x carrying case
- 1 x user manual



Accessories:

- Test lead set TL1500

Ordering Information:

Description	Order No.
ACD-3400 IND	3434889
TL1500	2696277



ACD-3300 IND CAT IV Industrial True RMS Clamp Meter up to 1000 A AC

- Functions**
- Current, voltage and resistance measurement
 - Continuity test with beeper
 - Frequency measurement
 - Peak value measurement
 - Temperature measurment
 - Duty Cycle
- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - Bargraph
 - Backlight
 - Auto Power Off
 - Relative Zero
 - Jaw opening: 51 mm
- Product highlights**
- True RMS measurement (TRMS)

Technical Data	
Display:	LCD, 3 ¹ / ₄ -digit, 6600 digits
Measurement ranges	
Current AC:	0.1-1000 A
Basic accuracy:	±(2% rdg. + 10 digits)
Frequency range:	50 Hz - 1 kHz
AC voltage:	0.1mV - 750 V
Basic accuracy:	±(1.5% rdg. + 8 digits)
Frequency range:	50 Hz - 1 kHz
DC voltage:	0.1mV -1000 V
Basic accuracy:	±(0.5% rdg. + 2 digits)
Continuity:	R < 30 Ω
Resistance:	0,1 Ω - 66,00 MΩ
Basic accuracy:	±(1% rdg. + 5 digits)
Frequency measurement:	0,01 Hz - 1.000 MHz
Capacitance:	0,001nF..6.6 mF
Duty Cycle:	5.0 % - 95.0 %
Temperature measurement:	-35.0°C - 1000°C
Pollution degree:	2
Measurement category:	CAT III 1000V, CAT IV 600V,
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	ø 51 mm
Power supply:	1x 9 V battery, IEC 6F22
Dimensions:	283 x 105 x 50 mm
Weight:	approx. 560g

Scope of supply:

- 1 x ACD-3300 IND
- 2 x test leads
- 1x 9 V battery, IEC 6F22
- 1 x carrying case
- 1 x user manual



Accessories:

- Test lead set TL1500

Ordering Information:

Description	Order No.
ACD-3300 IND	3434877
TL1500	2696277



ACD-31P Power measurement clamp TRMS up to 1000 A AC

Functions

- Current, voltage and resistance measurement
- Continuity test with beeper
- Frequency measurement
- Temperature measurement
- Measurement of apparent, reactive and active power
- Measurement of power factor $\cos \varphi$
- Peak value measurement

Product information

- Automatic range selection
- Integrated measurement memory (data hold)
- Jaw opening: 45 mm
- Auto power-off

Product highlights

- True RMS measurement (TRMS)
- RS-232 interface for software connection
- Power measurement up to 600 kW

Technical Data

Display:	LCD, 4-digit, 9999 digits
Measurement ranges	
Current AC:	0.01-1000 A
Basic accuracy:	$\pm(1\% \text{ rdg.} + 5 \text{ digits})$
Frequency range:	50 Hz to 3 kHz
AC voltage:	0.1-600 V
Basic accuracy:	$\pm(0.5\% \text{ rdg.} + 5 \text{ digits})$
Frequency range:	50 Hz to 3 kHz
DC voltage:	0.1-600 V
Basic accuracy:	$\pm(0.5\% \text{ rdg.} + 5 \text{ digits})$
Active power:	0-600.0 kW
Apparent power:	0-600.0 kVA
Reactive power:	0-600.0 kVAR
$\cos \varphi$:	0.1-0.99
Resistance:	0.1-999.9 Ω
Basic accuracy:	$\pm(1\% \text{ rdg.} + 6 \text{ digits})$
Continuity:	$R < 300 \Omega$
Frequency measurement:	5.00-500.0 Hz
Temperature measurement:	-50°C to 300°C
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	45 mm
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	224 x 78 x 40 mm
Weight:	approx. 225 g

Scope of supply:

- 1 x ACD-31P
- 2 x test leads
- 1 x temperature probe
- 2 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual



Accessories:

PC software and RS-232 cable
RS-232 Kit2



Test lead set TL245A

Ordering Information:

Description	Order No.
ACD-31P	2730736
RS-232 Kit 2	2733445
TL245A	3034444



ACD-56HPQ Power and harmonics measurement clamp TRMS up to 400 A AC

Functions

- Current, voltage and resistance measurement
- Continuity and diode test with beeper
- Frequency measurement
- Measurement of active, reactive and apparent power
- Measurement of power factor $\cos \varphi$
- Measurement of harmonics up to 25th with THD%
- Peak value measurement (1 ms)

Product information

- Automatic range selection
- Integrated measurement memory (data hold, MIN/MAX/AVG value)
- Jaw opening: 30 mm
- Auto power-off

Product highlights

- True RMS measurement (TRMS)
- Power measurements in symmetrical three-phase network with a single clamp
- "Third hand" test probe holder
- Backlight

Technical Data

Display:	LCD, 4-digit, 9999 digits
Measurement ranges	
Current AC:	0.1-399.9 A
Basic accuracy:	$\pm(1\% \text{ rdg.} + 3 \text{ digits})$
Frequency range:	40-400 Hz
AC voltage:	0.1-600 V
Basic accuracy:	$\pm(3\% \text{ rdg.} + 3 \text{ digits})$
Frequency range:	40-400 Hz
DC voltage:	0.1-600 V
Basic accuracy:	$\pm(1\% \text{ rdg.} + 3 \text{ digits})$
Active power:	0.00-999.99 kW
Apparent power:	0.00-999.99 kVA
Reactive power:	0.00-999.99 kVAR
$\cos \varphi$:	0.2-1.00
Harmonics display:	up to 25th
Resistance:	0.1-1999.9 Ω
Basic accuracy:	$\pm(1\% \text{ rdg.} + 5 \text{ digits})$
Continuity:	$R < 300 \Omega$
Frequency measurement:	40.0-399.9 Hz
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	30 mm
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	205 x 64 x 39 mm
Weight:	approx. 280 g

Scope of supply:

- 1 x ACD-56HPQ
- 1 x test leads
- 1 x test probe holder
- 2 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual



Accessories:

Test lead set TL245A

Ordering Information:

Description	Order No.
ACD-56HPQ	2730772
TL245A	3034444

Leakage Clamp Meter



AC50A Leakage current clamp (AC)

- Functions**
- Leakage current measurement
 - Voltage and resistance measurement
 - Continuity test with beeper
- Product information**
- Manual range selection
 - Integrated measurement memory (data hold)
 - MIN/MAX and relative value measurement
 - Additional bar graph display
 - Jaw opening: 30 mm
 - Auto power-off
- Product highlights**
- Minimum resolution: 0.01 mA
 - Range of applications: measurement of leakage or fault currents, current consumption of devices in (customer) service sector without breaking the circuit

Technical Data	
Display:	LCD, 3 3/4-digit, 3999 digits
Measurement ranges	
Current AC:	0.01 mA to 60 A
Tolerance:	±(1.5% rdg. + 5 digits)
AC voltage:	0.1-400 V
Tolerance:	±(2% rdg. + 4 digits)
Frequency range for AC current/voltage:	40 Hz to 1 kHz
Input resistance:	10 MΩ
Tolerance:	
Resistance:	0.1-400 Ω
Tolerance:	±(1% rdg. + 2 digits)
Continuity:	R < 40 Ω
Pollution degree:	2
Measurement category:	CAT II/600 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	30 mm
Power supply:	2 x 1.5 V battery, IEC LR6
Dimensions:	210 x 62 x 36 mm
Weight:	approx. 200 g

Scope of supply:

- 1 x AC50A
- 2 x test leads
- 2 x 1.5 V battery, IEC LR6
- 1 x carrying case
- 1 x user manual



Accessories:

- Test lead set TL245A

Ordering Information:

Description	Order No.
AC50A	3033017
TL245A	3034444



LH41A Current clamp (AC/DC)

- Functions**
- 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 Data	
Display:	LCD, 4000 digits
Measurement ranges	
Current AC/DC:	0.001-40 A
Basic accuracy:	±(1.3% rdg. + 5 digits)
Frequency range:	40-400 Hz
Pollution degree:	2
Measurement category:	CAT III/300 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	19 mm
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	184 x 71 x 31 mm
Weight:	approx. 235 g

Scope of supply:

- 1 x LH41A
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual

Ordering Information:

Description	Order No.
LH41A	3030898



A-300 Current clamp adapter (AC)

Functions

- Clamp adapter for extending the AC ranges of multimeters up to 200 A

Product information

- Output voltage: 1 mV/mA; 100 mV/A; 5 mV/A
- Jaw opening: 15 mm
- Fixed test leads
- No batteries required

Technical Data

Measurement ranges	
Current AC	1 A, 10 A, 200 A
Basic accuracy:	±(3 %)
Frequency range:	40 Hz...5 kHz
Output voltage	1 mV/mA; 100 mV/A; 5 mV/A
Measurement category:	CAT III/300 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	15 mm
Dimensions:	ca. 116 x 46 x 23 mm
Weight:	approx. 165 g

Scope of supply:

- 1 x A-300
- 1 x user manual

Ordering Information:

Description	Order No.
A-300	2744335



ACF-3000AK Flexible current transducer (AC)

Functions

- Flexible current transducer for extending the AC ranges of multimeters up to 3000 A

Product information

- Can be used with all common multimeters (mV measurement range)
- 4 mm connection
- Measurements also possible in small, compact systems with limited space without the need to disconnect cables
- Separate electronic unit for accurate measurements
- Transducer diameter: 178 mm

Product highlights

- Suitable for measuring cables and busbars that are difficult to access, as the flexible transformer can be placed around the object to be measured.
- Current measurement up to 3000 A AC

Technical Data

Measurement ranges	
Current AC:	30 A, 300 A, 3000 A
Basic accuracy:	±(1.0% rdg.)
Output voltage:	100 mV, 10 mV, 1 mV/A
AC frequency range:	10 Hz to 20 kHz
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010/IEC 61010
Transducer diameter:	210 mm (178 mm internal)
Power supply:	2 x 1.5 V battery, IEC LR6
Weight:	approx. 180 g

Scope of supply:

- 1 x ACF-3000AK
- 1 x connecting cable (2 m)
- 2 x 1.5 V battery, IEC LR06
- 1 x user manual

Ordering Information:

Description	Order No.
ACF-3000AK	2732388

Current clamp adapter



CT235A Current clamp adapter (AC/DC)

- Functions**
- 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 recorders
 - Output signal: 1 mV corresponds to 1 A test current
 - Jaw opening: 32 mm
 - Fixed test leads
 - Zero adjustment

Technical Data	
Measurement ranges	
Current AC/DC:	200 A, 1000 A
Basic accuracy:	±(1% + 0.5 A)
Output voltage:	1 mV/A
AC frequency range:	50 Hz to 10 kHz
Pollution degree:	2
Measurement category:	CAT III/300 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	32 mm
Cable Length	approx. 1.5 m
Power supply:	1 x 9 V battery, IEC 6F22
Dimensions:	approx. 195 x 70 x 30 mm
Weight:	approx. 300 g

Scope of supply:	
1 x CT235A	
1 x 9 V battery, IEC 6F22	

Ordering Information:	
Description	Order No.
CT235A	3026809



CT237B Current clamp adapter (AC/DC)

- Functions**
- 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 Data	
Measurement ranges	
Current AC/DC:	20 A, 200 A
Basic accuracy:	±(1,2% + 0.03 A)
Output voltage:	10 mV/A (20 A measurement range) 1 mV/A (200 A measurement range)
AC frequency range:	50 Hz to 1 kHz
Pollution degree:	2
Measurement category:	CAT III/300 V
Safety cert.:	EN 61010/IEC 61010
Jaw opening:	20 mm
Cable Length	approx. 1.5 m
Power supply:	1 x 9 V battery, IEC 6F22
Dimensions:	approx. 185 x 70 x 30 mm
Weight:	approx. 280 g

Scope of supply:	
1 x CT237B	
1 x 9 V battery, IEC 6F22	

Ordering Information:	
Description	Order No.
CT237B	3511514

Model	LCR 55A	AM8C	AM-220	AM-240	AM-150 TRMS	DM7C	DM9C	DM 73C	DM 78C	HD 160C
Page	28	17	17	18	20	18	19	19	20	21
Display max. reading	3 1/2-digit, 1999 Digits	Moving Coil	3 1/2-digit, 4000 Digits	3 1/2-digit, 4000 Digits	3 1/2-digit, 5000 Digits	3 1/2-digit, 1999 Digits	3 1/2-digit, 4000 Digits	3 1/2-digit, 3400 Digits	3 1/2-digit, 3200 Digits	4-digit, 9999 Digits
True RMS measurement					•					•
Bargraph					•			•	•	
Measurement ranges										
AC voltage		10...300 V	1 mV... 600 V	mV... 600 V	0.01 mV... 1000 V	1 mV...600 V	1 mV...600 V	0.001 V... 600 V	0.001 V... 600 V	0.1 mV... 1000 V
Basic accuracy*		± (5% full scale)	(1.5 %+3D)	(1.5 %+3D)	(0.12%+2D)	(1.5 % + 3 D)	(1.3 % + 5 D)	(1.5% + 8 D)	(4.0% + 5 D)	(1.2 % + 10 D)
Frequency range			40...400 Hz	40...400 Hz	40 Hz...20 kHz		50...400 Hz	50...500 Hz	50...60 Hz	45 Hz...2 kHz
DC voltage		2.5...300 V	1 mV... 600 V	1 mV... 600 V	0.01 mV... 1000 V	1 mV...600 V	0.1 mV...600 V	0.1 mV... 600 V	0.1 mV... 600 V	0.1 mV... 1500 V
Basic accuracy*		± (5% full scale)	(0.5%+2D)	(0.5%+2D)	(0.5%+3D)	(1.2 % + 3 D)	(0.8 % + 3 D)	(0.5% + 2 D)	(2.0% + 2 D)	(0.1% + 5 D)
AC current			1 µA... 10 A	1 µA... 10 A	0.1 µA...10 A (20A for 30 s)		0.01 mA...15 A			0.01 µA... 2 A
Basic accuracy*			(1.5%+3D)	(1.5%+3D)	(0.8%+4D)		(1.5 % + 3 D)			(0.8 % + 4 D)
Frequency range			40 Hz...400 Hz	40 Hz...400 Hz	40 Hz...1 kHz		50...200 Hz			45 Hz...1 kHz
DC current		0...250 mA	1 µA... 10 A	1 µA... 10 A	0.1 µA...10 A (20A for 30 s)	200 mA	0.01 mA...15 A			0.01 µA...2 A
Basic accuracy*		± (5% full scale)	(1.2%+3D)	(1.2%+3D)	(0.2%+4D)	(2 % + 3 D)	(1.5 % + 3 D)			(1.5%+ 10 D)
Resistance	0.01 Ω...20 MΩ	5...500 kΩ	0.1 Ω...40 MΩ	0.1 Ω...40 MΩ	0.01 Ω...50 MΩ	1 Ω...2 MΩ	0.1 Ω...40 MΩ	0.1 Ω...34 MΩ	0.1 Ω...32 MΩ	0.1 Ω...40 MΩ
Diode and continuity test	•		•	•	•		•	•	•	•
Capacitance	1 pF... 2000 µF		40 nF...4000 µF	40 nF...4000 µF	0.01 nF... 500.0 µF					0.01 nF... 400.0 µF
Frequency			10 Hz...10 MHz	10 Hz...10 MHz	6 Hz...125 kHz					0.01 Hz...10 MHz
Temperature				-50...750 °C	-50 °C...1000 °C					-20...1300 °C
Measurement range selection										
Automatic			•	•	•		•	•	•	•
Manual	•	•	•	•	•	•				
Data Hold	•		•	•	•			•	•	•
Min/Max value memory	•		•	•						•
Peak Hold										
Relative value display										
Data logger/interface					• / RS-232					
Auto-Power-Off	•		•	•	•		•	•	•	•
Battery	1 x 9 V	1 x 1.5 V	2 x 1.5 V	2 x 1.5 V	1 x 9 V	1 x 9 V	2 x 1.5 V	2 x 1.5 V	2 x 1.5 V	1 x 9 V
Measuring circuit category		CAT II/300 V	CAT III/600 V	CAT III/600 V	CAT IV/600V; CAT III/1000V	CAT II/600 V	CAT III/600 V	CAT III/300V; CAT IV/600V	CAT III/300V; CAT II/600V	CAT IV/1000V
Special features	Measurement of inductance (1 µH...200 H) Transistor test Diode test	Zero adjustment for resistance measurement	Large, easily readable LCD display with backlight	Large, easily readable LCD display with backlight, incl. Temperature probe	Data logger for 5400 readings Software optional	Batterytest 1.5V and 9V		Compact measuring device in pen design	Compact digital multimeter in card format	Highest safety rating of CAT IV/1000 V Backlight

Multimeter

Model	PM51A	PM53A	PM55A	5XP-A	15 XP-B	35 XP-A	30 XR-A	33 XR-A	34 XR-A	37 XR-A	38 XR-A
Page	21	22	22	23	23	24	24	25	25	26	26
											
Display max. reading	¾-digit, 4000 Digits	3¾-digit, 6000 Digits	3¾-digit, 6000 Digits	3½-digit, 1999 Digits	3½-digit, 1999 Digits	3¾-digit, 3999 Digits	3½-digit, 1999 Digits	3¾-digit, 3999 Digits	3¾-digit, 3999 Digits	4-digit, 9999 Digits	4-digit, 9999 Digits
True RMS measurement									•	•	• (AC+DC)
Bargraph								•	•	•	•
Measurement ranges											
AC voltage	0.001 V...600 V (2.0% + 5 D)	0.001 V...450 V (1.5% + 5 D)	0.001 V...600 V (1.5% + 5 D)	0.1 mV...750 V (1.5% + 5 D)	0.1 mV...750 V (1.5% + 5 D)	0.1 mV...750 V (1.5% + 5 D)	0.1 mV...600 V (1.5 %+4D)	0.1 mV...750 V (1.5 %+4D)	0.1 mV...750 V (1.2 %+8D)	0.1 mV...750 V (1.2%+10 D)	0.1 mV...750 V (1.2% + 10 D)
Basic accuracy*											
Frequency range	50...500 Hz (1.0% + 2 D)	50...60 Hz (0.5% + 3 D)	50...60 Hz (0.5% + 3 D)	45...500 Hz (1% + 1 D)	45...500 Hz (0.5% + 1 D)	45...500 Hz (0.5% + 1 D)	45 Hz...500 Hz (1%+1D)	45 Hz...500Hz (0.7%+1D)	45 Hz...2 kHz (0.5%+1D)	45 Hz...2 kHz (0.1%+5 D)	45 Hz...2 kHz (0.25% + 5 D)
DC voltage	0.1 mV...600 V (1.0% + 2 D)	0.001 V...450 V (0.5% + 3 D)	0.001 V...450 V (0.5% + 3 D)	0.1 mV...1000 V (1% + 1 D)	0.1 mV...1000 V (0.5% + 1 D)	0.1 mV...1000 V (0.5% + 1 D)	0.1 mV...600 V (1%+1D)	0.1 mV...1000 V (0.7%+1D)	0.1 mV...1000 V (0.5%+1D)	0.1 mV...1000 V (0.1%+5 D)	0.1 mV...1000 V (0.25% + 5 D)
Basic accuracy*											
AC current				0.1 µA...2000 µA (1.5% + 3 D)	1 µA...2 A (1.5% + 5 D)	0.1 µA...2 A (1.5% + 5 D)	1 µA...10 A (2%+4D)	1 µA...10 A (1.5%+4D)	0.1 µA...10 A (1.5%+8D)	0.01 µA...10 A (1.5%+10 D)	0.1 µA...10 A (1.5%+20 D)
Basic accuracy*											
Frequency range				50...60 Hz (1.2% + 3 D)	45...500 Hz (1.2% + 3 D)	45...500 Hz (1.0% + 2 D)	45 Hz...500Hz (2.0% + 3 D)	45 Hz...500Hz (1%+1D)	45 Hz...1 kHz (1%+1D)	45 Hz...1 kHz (0.5%+10 D)	45 Hz...1 kHz (0.5%+10 D)
DC current				0.1 µA...2000 µA (1.2% + 3 D)	1 µA...2 A (1.2% + 3 D)	0.1 µA...2 A (1.0% + 2 D)	0.1 µA...10 A (2.0% + 3 D)	0.1 µA...10 A (1%+1D)	0.1 µA...10 A (1%+1D)	0.01 µA...10 A (0.5%+10 D)	0.1 µA...10 A (0.5%+10 D)
Basic accuracy*											
Resistance	0.1 Ω...40 MΩ	0.001 Ω...6 MΩ	0.001 Ω...6 MΩ	0.1 Ω...20 MΩ	0.1 Ω...2000 MΩ	0.1 Ω...40 MΩ	0.1Ω...20 MΩ	0.1Ω...4 MΩ	0.1Ω...40 MΩ	0.1Ω...40 MΩ	0.1 Ω...40 MΩ
Diode and continuity test	•	•	•	•	•	•	•	•	•	•	•
Capacitance	0.1 nF...3000 µF	0.1 nF...100.0 µF	0.1 nF...100.0 µF	4.000 nF...4.000 µF	4.000 nF...4.000 mF	4.000 nF...4.000 mF	4.000 nF...4.000 mF	4.000 nF...4.000 mF	4.000 nF...4.000 mF	0.01 nF...400.0 µF	0.01 nF...400.0 µF
Frequency	5 Hz...1 MHz	5 Hz...10 kHz	10 Hz...30.00 kHz	10.00 Hz...1 MHz	10.00 Hz...1 MHz	10.00 Hz...1 MHz	10.00 Hz...1 MHz	10.00 Hz...1 MHz	10.00 Hz...1 MHz	3.00Hz...10MHz	3.00 Hz...10 MHz
Temperature				-20...1000 °C	-20...1000 °C	-20...1000 °C	-20...1000 °C	-20...1000 °C	-20...1000 °C	-20...1300 °C	-20...1300 °C
Measurement range selection											
Automatic	•	•	•		•	•			•	•	•
Manual				•	•	•	•	•	•	•	•
Data Hold	•	•	•	•	•	•	•	•	•	•	•
Min/Max value memory											
Peak Hold											
Relative value display											
Data logger/interface											
Auto-Power-Off	•	•	•		•	•		•	•	•	• - / RS-232
Battery	1 x 3 V	1 x 3 V	1 x 3 V	1 x 9 V	1 x 9 V	1 x 9 V	1 x 9 V	1 x 9 V	1 x 9 V	1 x 9 V	1 x 9 V
Measuring circuit category	CAT III/300V, CAT I/600V	CAT III/450V, CAT I/600V	CAT II/300V, CAT I/600V	CAT III/300V, CAT I/600V	CAT III/300V, CAT I/600V	CAT III/300V, CAT I/600V	CAT III/300V, CAT I/600 V	CAT III/600 V, CAT I/1000 V	CAT III/600 V, CAT I/1000 V	CAT III/600V, CAT I/1000V	CAT IV/600V, CAT III/1000V
Special features	Compact digital multimeter in card format Large, easy-to-read display	Compact digital multimeter in card format, Autom. function selection of voltages and resistance, Non-contact voltage detection	Compact digital multimeter in card format, Autom. function selection of voltages and resistance, Non-contact voltage detection	Non-contact voltage detection (NCV), Batterytest 1.5V/9V, Magnetic holder (MagneGrip™)	Logic test function (TTL), Non-contact voltage detection (NCV), Magnetic holder (MagneGrip™)	Non-contact voltage detection (NCV), Magnetic holder (MagneGrip™)	Non-contact voltage detection (NCV), Battery test 1.5V/9V/Magnetic holder (MagneGrip™)	Magnetic holder (MagneGrip™)	Duty cycle function, Magnetic holder (MagneGrip™)	Inductance measurement Audible warning signal in case of wrong jack assignment Logic test Magnetic holder (MagneGrip™)	Current loop measurement (4...20 mA), Software available as an option Magnetic holder (MagneGrip™)
											Backlight



AM8C Analogue mini multimeter

Functions

- Current, voltage and resistance measurement
- Frequency measurement
- Battery test

Product information

- Manual range selection
- Mirror scale
- Wide range of applications thanks to simple operation: schools, training, automotive, electricians, industry etc.
- Protective holster included
- Zero adjustment for resistance measurement

Technical Data

Display:	moving coil mechanism, analogue
Measurement ranges	
AC voltage:	10-300 V
Tolerance:	±(5% of full scale)
DC voltage:	2.5-300 V
Tolerance:	±(5% of full scale)
Input resistance:	2 MΩ
Current DC:	0-250 mA
Tolerance:	±(5% of full scale)
Frequency range for AC:	50/60 Hz
Resistance:	5-500 kΩ
Tolerance:	±(5% of full scale)
Pollution degree:	2
Safety cert.:	EN 61010, IEC 61010
Measurement category:	CAT II/300 V
Power supply:	1 x 1.5 V battery, IEC 6LR AA
Dimensions:	65 x 130 x 40 mm
Weight:	approx. 200 g

Scope of supply:

- 1 x AM8C
- 1 x 1.5 V battery, LR6 AA
- 1 x user manual



Accessories:

- Carrying case VC20A

Ordering Information:

Description	Order No.
AM8C	3016948
VC20A	3099127



AM-220 Full-featured digital multimeter

Functions

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

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- MIN/MAX data hold
- Relative measurement
- Auto power-off

Product highlights

- Large, easily readable LCD display with backlight

Technical Data

Display:	LCD, 3 1/2-digit, 4000 digits
Measurement ranges	
AC voltage:	1 mV to 600 V
Basic accuracy:	±(1.5% rdg. + 3 digits)
Frequency range:	40-400 Hz
DC voltage:	1 mV to 600 V
Basic accuracy:	±(0.5% rdg. + 2 digits)
Input resistance:	10 MΩ
Current AC:	1 μA to 10 A
Basic accuracy:	±(1.5% rdg. + 3 digits)
Frequency range:	40-400 Hz
Current DC:	1 μA to 10 A
Basic accuracy:	±(1.2% rdg. + 3 digits)
Resistance:	0.1 Ω to 40 MΩ
Basic accuracy:	±(1% rdg. + 2 digits)
Continuity:	R < 50 Ω
Frequency:	10.00 Hz to 10 MHz
Basic accuracy:	±(0.1% rdg. + 5 digits)
Capacitance:	40.00 nF to 4000 μF
Basic accuracy:	±(2.5% rdg. + 5 digits)
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010, IEC 61010
Power supply:	2 x 1.5 V battery, IEC LR6
Dimensions:	156 x 86 x 38 mm
Weight:	approx. 260 g (incl. battery)

Scope of supply:

- 1 x AM-220
- 2 x test leads
- 2 x 1.5 V battery, IEC LR6
- 1 x user manual



Accessories:

- Carrying case VC30A



- Test lead set TL245A

Ordering Information:

Description	Order No.
AM-220	2730925
VC30A	3068280
TL245A	3034444

Multimeter



AM-240

Cost-effective multimeter with temperature function

Functions

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

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- MIN/MAX data hold
- Relative measurement
- Auto power-off

Product highlights

- Large, easily readable LCD display with backlight

Technical Data

Display:	3 1/4-digit, LCD, 4000 digits
Measurement ranges	
AC voltage:	1 mV...600 V
Basic accuracy:	±(1,5% rdg. + 3 digits)
Frequency range:	40...400 Hz
DC voltage:	1 mV...600 V
Basic accuracy:	±(0,5% rdg. + 2 digits)
Input resistance:	10 MΩ
Current AC:	1 μA...10 A
Basic accuracy:	±(1,5% rdg. + 3 digits)
Frequency range:	40...400 Hz
Current DC:	1 μA...10 A
Basic accuracy:	±(1,2% rdg. + 3 digits)
Resistance:	0,1 Ω...40 MΩ
Basic accuracy:	±(1 % rdg. + 2 digits)
Continuity:	R < 50 Ω
Frequency:	10,00 Hz...10 MHz
Basic accuracy:	±(0,1% rdg. + 5 digits)
Capacitance:	40,00 nF...4000 μF
Basic accuracy:	±(2,5% rdg. + 5 digits)
Temperature measurement	-50°C...750°C
Basic accuracy:	±(1,5% + 2°C)
Pollution degree:	2
Measurement category:	CAT III/600V
Safety cert.:	EN 61010, IEC 61010
Power supply:	2 x battery 1,5 V, IEC LR6
Dimensions:	156 x 86 x 38 mm
Weight:	approx. 260 g (incl. battery)

Scope of supply:

- 1 x AM-240
- 2 x test leads
- 2 x 1.5 V battery, IEC LR6
- 1 x temperature probe
- 1 x user manual



Accessories:

Carrying case VC30A



Test lead set TL245A

Ordering Information:

Description	Order No.
AM-240	2730933
VC30A	3068280
TL245A	3034444



AM-150

Digital TRMS multimeter with data logger

Functions

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

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- Additional bar graph display (52 segments)
- Backlight
- Auto power-off

Product highlights

- True RMS measurement (TRMS)
- RS-232 interface for PC connection (optional software available)
- Data logger for 5400 readings (interval selectable between 50 ms and 480 sec.)
- Automatic test lead compensation

Technical Data

Display:	LCD, 3 1/4-digit, 5000 digits
Measurement ranges	
AC voltage:	0.01 mV to 1000 V
Basic accuracy:	±(0.12% rdg. + 2 digits)
Frequency range:	40 Hz to 20 kHz
DC voltage:	0.01 mV to 1000 V
Basic accuracy:	±(0.5% rdg. + 3 digits)
Input resistance:	10 MΩ
Current AC:	0.1 μA to 10 A (20 A, 30 s)
Basic accuracy:	±(0.8% rdg. + 4 digits)
Frequency range:	40 Hz to 1 kHz
Current DC:	0.1 μA to 10 A (20 A, 30 s)
Basic accuracy:	±(0.2% rdg. + 4 digits)
Resistance:	0.01 Ω to 50.00 MΩ
Basic accuracy:	±(0.2% rdg. + 6 digits)
Continuity:	R < 200 Ω
Frequency:	6 Hz to 125 kHz
Basic accuracy:	±(0.01% rdg. + 2 digits)
Capacitance:	0.01 nF to 500.0 μF
Basic accuracy:	±(0.8% rdg. + 3 digits)
Temperature:	-50°C to 1000°C
Basic accuracy:	±(1.0% rdg. + 3 digits)
Pollution degree:	2
Measurement category:	CAT IV/600V, CAT III/1000 V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	193 x 97 x 46 mm
Weight:	approx. 370 g (incl. battery)

Scope of supply:

- 1 x AM-150
- 2 x test leads
- 1 x temperature probe
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Carrying case CC-ACDC



Software for AM-150 RS-232 Kit 1



Test lead set TL245A

Ordering Information:

Description	Order No.
AM-150	2730902
CC-ACDC	2732643
RS-232 Kit 1	2733438
TL245A	3034444



DM7C Compact digital multimeter

Functions

- Voltage, current and resistance measurement
- Diode and acoustic continuity test
- 1.5 V and 9 V battery test

Product information

- Manual range selection
- Shock-proof and impact-resistant thanks to standard protective holster

Technical Data

Display:	LCD, 3 1/2-digit, 1999 digits
Measurement ranges	
AC voltage:	1 mV to 600 V
Tolerance:	±(1.5% rdg. + 3 digits)
DC voltage:	1 mV to 600 V
Tolerance:	±(1.2% rdg. + 3 digits)
Input resistance:	460 kΩ
Current DC:	200 mA
Tolerance:	±(2% rdg. + 3 digits)
Resistance:	1 Ω to 2 MΩ
Tolerance:	±(1.5% rdg. + 3 digits)
AC voltage:	50–1000 Hz
Pollution degree:	2
Measurement category:	CAT II/600 V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	170 x 85 x 50 mm
Weight:	410 g

Scope of supply:

- 1 x DM7C
- 1 x holster
- 2 x test leads
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Carrying case VC20A



Test lead set TL245A

Ordering Information:

Description	Order No.
DM7C	2727756
TL245A	3034444



DM9C Compact digital multimeter

Functions

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

Product information

- Automatic range selection
- Shock-proof and impact-resistant thanks to standard protective holster
- Auto power-off

Technical Data

Display:	LCD, 3 1/2-digit, 4000 digits
Measurement ranges	
AC voltage:	1 mV to 600 V
Tolerance:	±(1.3% rdg. + 5 digits)
DC voltage:	0.1–600 V
Tolerance:	±(0.8% rdg. + 3 digits)
Input resistance:	10 MΩ
Current AC:	0.01 mA to 10 A/15 A (30 s)
Tolerance:	±(1.5% rdg. + 3 digits)
Current DC:	0.01 mA to 10 A/15 A (30 s)
Tolerance:	±(1.5% rdg. + 3 digits)
Resistance:	0.1 Ω to 40 MΩ
Tolerance:	±(1.5% rdg. + 3 digits)
Frequency range for Alternating current:	50–200 Hz
AC voltage:	50–400 Hz
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010, IEC 61010
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	170 x 85 x 50 mm
Weight:	410 g

Scope of supply:

- 1 x DM9C
- 1 x protective holster
- 2 x test leads
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Carrying case VC20A



Test lead set TL245A

Ordering Information:

Description	Order No.
DM9C	2727763
TL245A	3034444

Multimeter



DM73C Pen-design digital multimeter

- Functions**
- Voltage and resistance measurement
 - Diode and acoustic continuity test
- Product information**
- Automatic range selection
 - Integrated measurement memory (data hold)
 - Additional bar graph display
 - Auto power-off
- Product highlights**
- Compact multimeter in pen design

Technical Data	
Display:	LCD, 3 3/4-digit, 3400 digits
Measurement ranges	
AC voltage:	0.001–600 V
Basic accuracy:	±(1.5% rdg. + 8 digits)
Frequency range:	50–500 Hz
DC voltage:	0.1–600 V
Basic accuracy:	±(0.5% rdg. + 2 digits)
Input resistance:	10 MΩ
Resistance:	0.1 Ω to 34 MΩ
Basic accuracy:	±(1.0% rdg. + 4 digits)
Continuity:	R < 35 Ω
Pollution degree:	2
Measurement category:	CAT III/300V, CAT II/600V
Safety cert.:	EN 61010, IEC 61010
Power supply:	2 x 1.5 V battery, IEC LR44
Dimensions:	198 x 29 x 35 mm
Weight:	approx. 150 g (incl. battery)

Scope of supply:

- 1 x DM73C
- 1 x test lead
- 1 x crocodile clip
- 1 x test probe
- 2 x 1.5 V battery, IEC LR44
- 1 x user manual



Accessories:

- Carrying case VC30A

Ordering Information:

Description	Order No.
DM73C	2727739
VC30A	3068280



DM78C Pocket multimeter in protective case

- Functions**
- Voltage and resistance measurement
 - Diode and acoustic continuity test
- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - Additional bar graph display
 - With fixed test leads in own protective case
 - Auto power-off
- Product highlights**
- Digital multimeter in handy, pocket-sized case

Technical Data	
Display:	LCD, 3 3/4-digit, 3200 digits
Measurement ranges	
AC voltage:	0.001–600 V
Basic accuracy:	±(4.0% rdg. + 5 digits)
Frequency range:	50–60 Hz
DC voltage:	0.1–600 V
Basic accuracy:	±(2.0% rdg. + 2 digits)
Input resistance:	10 MΩ
Resistance:	0.1 Ω to 32 MΩ
Basic accuracy:	±(2.0% rdg. + 4 digits)
Continuity:	R < 35 Ω
Pollution degree:	2
Measurement category:	CAT III/300 V, CAT II/600 V
Safety cert.:	EN 61010, IEC 61010
Power supply:	2 x 1.5 V battery, IEC LR44
Dimensions:	130 x 77 x 18 mm
Weight:	approx. 120 g (incl. battery)

Scope of supply:

- 1 x DM78C
- 2 x 1.5 V battery, IEC LR44
- 1 x user manual

Ordering Information:

Description	Order No.
DM78C	3156830



HD160C Heavy-duty digital multimeter (TRMS)

Functions

- 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 (data hold)
- MIN/MAX, relative and average value measurement
- Backlight
- 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

Technical Data

Display:	LCD, 4-digit, 9999 digits
Measurement ranges	
AC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(1.2% rdg. + 10 digits)
Frequency range:	45 Hz to 2 kHz
DC voltage:	0.1 mV to 1500 V
Basic accuracy:	±(0.1% rdg. + 5 digits)
Input resistance:	10 MΩ
Current AC:	0.01 μA to 2 A
Basic accuracy:	±(0.8% rdg. + 4 digits)
Frequency range:	45 Hz to 1 kHz
Current DC:	0.01 μA to 2 A
Basic accuracy:	±(1.5% rdg. + 10 digits)
Resistance:	0.1 Ω to 40 MΩ
Basic accuracy:	±(1.0% rdg. + 10 digits)
Continuity:	R < 40 Ω
Frequency measurement:	0.01 Hz to 10 MHz
Basic accuracy:	±(0.1% rdg. + 5 digits)
Capacitance measurement:	0.01 nF to 400.0 μF
Basic accuracy:	±(3.0% rdg. + 10 digits)
Temperature:	-20°C to 1300°C
Basic accuracy:	±(1.0% rdg. + 3°C)
Pollution degree:	2
Measurement category:	CAT IV/1000 V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	200 x 102 x 59 mm
Weight:	approx. 642 g (incl. battery)

Scope of supply:

- 1 x HD160C
- 2 x test leads
- 1 x magnetic holster
- 1 x temperature probe
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Test lead set TL245A



Carrying case VC221B

Ordering Information:

Description	Order No.
HD160C	2670787
TL245A	3034444
VC221B	3068271



PM51A Pocket multimeter with frequency and capacitance measurement

Functions

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

Product information

- Automatic range selection
- Integrated measurement memory (data hold)
- Fixed test leads
- Auto power-off

Product highlights

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

Technical Data

Display:	LCD, 3 1/2-digit, 4000 digits
Measurement ranges	
AC voltage:	0.001–600 V
Basic accuracy:	±(2.0% rdg. + 5 digits)
Frequency range:	50–500 Hz
DC voltage:	0.1–600 V
Basic accuracy:	±(1.0% rdg. + 2 digits)
Input resistance:	10 MΩ
Resistance:	0.1 Ω to 40 MΩ
Basic accuracy:	±(1.5% rdg. + 6 digits)
Continuity:	R < 65 Ω
Frequency:	5 Hz to 1 MHz
Basic accuracy:	±(0.5% rdg. + 4 digits)
Capacitance:	0.1 nF to 3000 μF
Basic accuracy:	±(3.5% rdg. + 6 digits)
Pollution degree:	2
Measurement category:	CAT III/300V, CAT II/600V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 3 V battery, IEC CR2032
Dimensions:	113 x 53 x 10 mm
Weight:	approx. 78 g (incl. battery)

Scope of supply:

- 1 x PM51A
- 1 x 3 V battery, IEC CR2032
- 1 x user manual



Accessories:

Carrying case VC3A

Ordering Information:

Description	Order No.
PM51A	2727700
VC3A	3099130

Multimeter



PM53A

Pocket multimeter with non-contact voltage detection

Functions

- AC/DC voltage measurement
- Resistance measurement
- Diode and acoustic continuity test
- Capacitance and frequency measurement
- Non-contact voltage detection (VolTect™)

Product information

- Automatic function selection of AC/DC voltage or resistance (AutoTect™)
- Integrated measurement memory (data hold)
- Fixed test leads
- Includes rubber holster and auto power-off function

Product highlights

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

Technical Data

Display:	LCD, 3 1/4-digit, 6000 digits
Measurement ranges	
AC voltage:	0.001–450 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50–60 Hz
DC voltage:	0.001–450 V
Basic accuracy:	±(0.5% rdg. + 3 digits)
Resistance:	0.001 kΩ to 6.000 MΩ
Basic accuracy:	±(1.2% rdg. + 6 digits)
Continuity:	R < 175 Ω
Frequency:	5 Hz to 10 kHz
Basic accuracy:	±(0.5% rdg. + 4 digits)
Capacitance:	0.1 nF to 100.0 μF
Basic accuracy:	±(3.5% rdg. + 6 digits)
Pollution degree:	2
Measurement category:	CAT III/300V, CAT II/450V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 3 V battery, IEC CR2032
Dimensions:	113 x 53 x 10 mm
Weight:	approx. 78 g (incl. battery)

Scope of supply:

- 1 x PM53A
- 1 x 3 V battery, IEC CR2032
- 1 x user manual



Accessories:

- Carrying case VC3A

Ordering Information:

Description	Order No.
PM53A	2727717
VC3A	3099130



PM55A

Pocket multimeter with non-contact voltage detection (VolTect™) and auto 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 (VolTect™)

Product information

- Automatic range selection
- Integrated measurement memory (data hold)
- Includes rubber holster and auto power-off function

Product highlights

- Compact digital multimeter in card format
- Large, clear display
- Automatic function selection of voltage and resistance (AutoTect™)

Technical Data

Display:	LCD, 3 1/4-digit, 6000 digits
Measurement ranges	
AC voltage:	0.001–600 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	50–60 Hz
DC voltage:	0.001–450 V
Basic accuracy:	±(0.5% rdg. + 3 digits)
Current AC:	0.1 μA to 2000 μA
Basic accuracy:	±(1.5% rdg. + 3 digits)
Frequency range:	50–60 Hz
Current DC:	0.1–2000 μA
Basic accuracy:	±(1.2% rdg. + 3 digits)
Resistance:	0.1 Ω to 6.000 MΩ
Basic accuracy:	±(1.2% rdg. + 6 digits)
Continuity:	R < 175 Ω
Frequency:	10 Hz to 30.00 kHz
Basic accuracy:	±(0.5% rdg. + 4 digits)
Capacitance:	0.1 nF to 100.0 μF
Basic accuracy:	±(3.5% rdg. + 6 digits)
Pollution degree:	2
Measurement category:	CAT III/300V, CAT II/600V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 3 V battery, IEC CR2032
Dimensions:	113 x 53 x 10 mm
Weight:	approx. 78 g (incl. battery)

Scope of supply:

- 1 x PM55A
- 1 x 3 V battery, IEC CR2032
- 1 x carrying case
- 1 x user manual



Accessories:

- Carrying case VC3A

Ordering Information:

Description	Order No.
PM55A	2727721
VC3A	3099130



5XP-A

Digital multimeter with non-contact voltage detection

Functions

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

Product information

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

Product highlights

- Non-contact voltage detection (NCV)
- Magnetic holster (Magne-Grip™)
- 1.5 V and 9 V battery test

Technical Data

Display:	LCD, 3 1/2-digit, 1999 digits
Measurement ranges	
AC voltage:	0.1 mV to 750 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	45–500 Hz
DC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(1% rdg. + 1 digit)
Current AC:	0.1 µA to 200 mA
Basic accuracy:	±(2% rdg. + 5 digits)
Frequency range:	45–500 Hz
Current DC:	0.1 µA to 200 mA
Basic accuracy:	±(1.5% rdg. + 1 digit)
Resistance:	0.1 Ω to 20 MΩ
Basic accuracy:	±(1% rdg. + 4 digits)
Continuity:	R < 75 Ω
Pollution degree:	2
Measurement category:	CAT III/300V, CAT II/600V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	155 x 72 x 32 mm
Weight:	approx. 210 g (incl. battery)

Scope of supply:

- 1 x 5XP-A
- 2 x test leads
- 1 x magnetic holster
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Carrying case VC30A



Test lead set TL245A

Ordering Information:

Description	Order No.
5XP-A	2727851
VC30A	3068280
TL245A	3034444



15XP-B

Digital multimeter with non-contact voltage detection and logic test

Functions

- Voltage, current and resistance measurement
- Diode and acoustic continuity test
- Logic test function (TTL)

Product information

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

Product highlights

- Non-contact voltage detection (NCV)
- Magnetic holster (Magne-Grip™)

Technical Data

Display:	LCD, 3 1/2-digit, 1999 Digits
Measurement ranges	
AC voltage:	0.1 mV to 750 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	45–500 Hz
DC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(0.5% rdg. + 1 digit)
Current AC:	1 µA to 2 A
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	45–500 Hz
Current DC:	1 µA to 2 A
Basic accuracy:	±(1.2% rdg. + 3 digits)
Resistance:	0.1 Ω to 2000 MΩ
Basic accuracy:	±(1% rdg. + 4 digits)
Continuity:	R < 25 Ω
Pollution degree:	2
Measurement category:	CAT III/600V, CAT II/1000V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	155 x 72 x 32 mm
Weight:	approx. 210 g (incl. battery)

Scope of supply:

- 1 x 15XP-B
- 2 x test leads
- 1 x magnetic holster
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Carrying case VC30A



Test lead set TL245A

Ordering Information:

Description	Order No.
15XP-B	3534088
VC30A	3068280
TL245A	3034444

Multimeter



35XP-A Compact digital multimeter

- Functions**
- Voltage, current and resistance measurement
 - Capacitance and frequency measurement
 - Diode and acoustic continuity test
 - Temperature measurement
 - Measurement of ionisation currents in heating systems

- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - Shock-proof and impact-resistant thanks to standard protective holster
 - Auto power-off

- Product highlights**
- Non-contact voltage detection (NCV)
 - Magnetic holster (Magne-Grip™)

Technical Data	
Display:	LCD, 3 1/4-digit, 3999 digits
Measurement ranges	
AC voltage:	0.1 mV to 750 V
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	45–500Hz
DC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(0.5% rdg. + 1 digit)
Current AC:	0.1 A to 2 A
Basic accuracy:	±(1.5% rdg. + 5 digits)
Frequency range:	45–500Hz
Current DC:	0.1 A to 2 A
Basic accuracy:	±(1.0% rdg. + 2 digits)
Resistance:	0.1 Ω to 40 MΩ
Basic accuracy:	±(1% rdg. + 4 digits)
Continuity:	R < 25 Ω
Frequency:	10.00 Hz to 1 MHz
Basic accuracy:	±(0.1% rdg. + 3 digits)
Capacitance:	4.000 nF to 4.000 mF
Basic accuracy:	±(5% rdg. + 30 digits)
Temperature measurement:	-20°C to 1000°C
Basic accuracy:	±(2.0% +4°C)
Pollution degree:	2
Measurement category:	CAT III/300V, CAT II/600V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	155 x 72 x 32 mm
Weight:	approx. 210 g (incl. battery)

- Scope of supply:**
- 1 x 35XP-A
 - 2 x test leads
 - 1 x flexible wire probe (0–200°C)
 - 1 x type "K" probe adapter
 - 1 x magnetic holster
 - 1 x 9 V battery, IEC 6LR61
 - 1 x user manual

- Accessories:**
- Carrying case VC30A
 - Test lead set TL245A

Ordering Information:	
Description	Order No.
35XP-A	2727849
VC30A	3068280
TL245A	3034444



30XR-A Professional multimeter with non-contact voltage detection

- Functions**
- Voltage, current and resistance measurement
 - Diode and acoustic continuity test
 - 1.5 V and 9 V battery test

- Product information**
- Manual range selection
 - Integrated measurement memory (data hold)
 - MIN/MAX data hold

- Product highlights**
- Non-contact voltage detection (NVC)
 - Magnetic holster (Magne-Grip™)

Technical Data	
Display:	LCD, 3 1/2-digit, 1999 digits
Measurement ranges	
AC voltage:	0.1 mV to 600 V
Basic accuracy:	±(1.5% rdg. + 4 digits)
Frequency range:	45–500Hz
DC voltage:	0.1–600 V
Basic accuracy:	±(1% rdg. + 1 digit)
Input resistance:	10 MΩ
Current AC:	0.1 μA to 10 A
Basic accuracy:	±(2% rdg. + 4 digits)
Frequency range:	45–500Hz
Current DC:	0.1 μA to 10 A
Basic accuracy:	±(2.0% rdg. + 3 digits)
Resistance:	0.1 Ω to 20 MΩ
Basic accuracy:	±(1% rdg. + 4 digits)
Continuity:	R < 75 Ω
Pollution degree:	2
Measurement category:	CAT III/300V, CAT II/600V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	196 x 92 x 60 mm
Weight:	approx. 426 g (incl. battery)

- Scope of supply:**
- 1 x 30XR-A
 - 2 x test leads
 - 1 x magnetic holster
 - 1 x 9 V battery, IEC 6LR61
 - 1 x user manual

- Accessories:**
- Carrying case big, VC221B
 - Test lead set TL245A

Ordering Information:	
Description	Order No.
30XR-A	2727774
VC221B	3068271
TL245A	3034444



33XR-A Professional multimeter with temperature measurement

Functions

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

Product information

- Manual range selection
- Integrated measurement memory (data hold)
- MIN/MAX, relative and peak value measurement
- Additional bar graph display (41 segments)
- Shock-proof and impact-resistant thanks to standard protective holster
- Auto power-off

Product highlights

- Magnetic holster (Magne-Grip™)

Scope of supply:

- 1 x 33XR-A
- 2 x test leads
- 1 x magnetic holster
- 1 x temperature adapter
- 1 x temperature probe (0–200°C)
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual



Accessories:

Carrying case big, VC221B



Test lead set TL245A

Technical Data

Display:	LCD, 3 3/4-digit, 3999 digits
Measurement ranges	
AC voltage:	0.1 mV to 750 V
Basic accuracy:	±(1.5% rdg. + 4 digits)
Frequency range:	45–500 Hz
DC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(0.7% rdg. + 1 digit)
Input resistance:	10 MΩ
Current AC:	0.1 μA to 10 A
Basic accuracy:	±(1.5% rdg. + 4 digits)
Frequency range:	45–500 Hz
Current DC:	0.1 μA to 10 A
Basic accuracy:	±(1.0% rdg. + 1 digit)
Resistance:	0.1 Ω to 4 MΩ
Basic accuracy:	±(1% rdg. + 4 digits)
Continuity:	R < 35 Ω
Frequency measurement:	10.00 Hz to 1 MHz
Basic accuracy:	±(0.1% rdg. + 3 digits)
Capacitance measurement:	4.000 nF to 4.000 mF
Basic accuracy:	±(5% rdg. + 10 digits)
Temperature measurement:	–20°C to 1000°C
Basic accuracy:	±(2.0% +4°C)
Pollution degree:	2
Measurement category:	CAT III/600V, CAT II/1000V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	196 x 92 x 60 mm
Weight:	approx. 400 g (incl. battery)

Ordering Information:

Description	Order No.
33XR-A	2727788
VC221B	3068271
TL245A	3034444



34XR-A Professional TRMS multimeter with temperature measurement and backlight

Functions

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

Product information

- Automatic and manual range selection
- Integrated measurement memory (data hold)
- MIN/MAX, relative and peak value measurement
- Additional bar graph display (41 segments)
- Backlight
- Shock-proof and impact-resistant thanks to standard protective holster
- Auto power-off

Product highlights

- True RMS measurement (TRMS)
- Magnetic holster (Magne-Grip™)
- Duty cycle function

Technical Data

Display:	LCD, 3-3/4-digit, 3999 digits
Measurement ranges	
AC voltage:	0.1 mV to 750 V
Basic accuracy:	±(1.2% rdg. + 8 digits)
Frequency range:	45 Hz to 2 kHz
DC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(0.5% rdg. + 1 digit)
Input resistance:	10 MΩ
Current AC:	0.1 μA to 10 A
Basic accuracy:	±(1.5% rdg. + 8 digits)
Frequency range:	45 to 1 kHz
Current DC:	0.1 μA to 10 A
Basic accuracy:	±(1.0% rdg. + 1 digit)
Resistance:	0.1 Ω to 40 MΩ
Basic accuracy:	±(1% rdg. + 4 digits)
Continuity:	R < 35 Ω
Duty cycle:	0–90%
Accuracy:	(5 V logic) ±(2.0% rdg. + 5 digits)
Frequency:	10.00 Hz to 1 MHz
Basic accuracy:	±(0.1% rdg. + 3 digits)
Capacitance:	4.000 nF to 4.000 mF
Basic accuracy:	±(5% rdg. + 10 digits)
Temperature:	–20°C to 1000°C
Basic accuracy:	±(2.0% +4°C)
Pollution degree:	2
Measurement category:	CAT III/600V, CAT II/1000V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	196 x 92 x 60 mm
Weight:	approx. 400 g (incl. battery)

Scope of supply:

- 1 x 34XR-A
- 2 x test leads
- 1 x magnetic holster
- 1 x temperature adapter
- 1 x temperature probe (0–200°C)
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual

Ordering Information:

Description	Order No.
34XR-A	2727795
VC221B (Carrying case)	3068271
TL245A (Test lead set)	3034444

Multimeter



37XR-A Professional TRMS multimeter with component and logic test

- Functions**
- Voltage, current and resistance measurement
 - Capacitance and frequency measurement
 - Diode and acoustic continuity test
 - Inductance measurement
 - Attenuation measurement (dBm)
- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - MIN/MAX, relative and peak value measurement
 - Additional bar graph display (41 segments)
 - Backlight
 - Shock-proof and impact-resistant thanks to standard protective holster
 - Auto power-off
- Product highlights**
- True RMS measurement (TRMS)
 - Acoustic warning signal and display message in case of incorrect jack connections
 - Magnetic holster (Magne-Grip™)
 - Duty cycle function
 - Logic test function (TTL, CMOS)

Technical Data	
Display:	LCD, 4-digit, 9999 digits
Measurement ranges	
AC voltage:	0.1 mV to 750 V
Basic accuracy:	±(1.2% rdg. + 10 digits)
Frequency range:	45 Hz to 2 kHz
DC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(0.1% rdg. + 5 digits)
Input resistance:	10 MΩ
Current AC:	0.01 μA to 10 A
Basic accuracy:	±(1.5% rdg. + 10 digits)
Frequency range:	45 Hz to 1 kHz
Current DC:	0.01 μA to 10 A
Basic accuracy:	±(0.5% rdg. + 10 digits)
Resistance:	0.1 Ω to 40 MΩ
Basic accuracy:	±(0.5% rdg. + 8 digits)
Continuity:	R < 40 Ω
Duty cycle:	0–90%
Accuracy:	(5 V logic)
	±(2.0% rdg. + 20 digits)
Frequency:	3.00 Hz to 10 MHz
Basic accuracy:	±(0.1% rdg. + 5 digits)
Capacitance:	0.01 nF to 400.0 μF
Basic accuracy:	±(3.0% rdg. + 10 digits)
Inductance:	1 μH to 40.00 H
Basic accuracy:	±(5.0% rdg. + 30 digits)
Attenuation:	-13 dBm to +50 dBm
Basic accuracy:	±(0.7 dB + 8 digits)
Pollution degree:	2
Measurement category:	CAT III/600V, CAT II/1000V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	196 x 92 x 60 mm
Weight:	approx. 482 g (incl. battery)

Scope of supply:	
1 x 37XR-A	
2 x test leads	
1 x magnetic holster	
1 x 9 V battery, IEC 6LR61	
1 x user manual	

Ordering Information:	
Description	Order No.
37XR-A	2727808
VC221B (Carrying case)	3068271
TL245A (Test lead set)	3034444



38XR-A Professional TRMS (AC+DC) multimeter with PC interface

- Functions**
- Voltage, current and resistance measurement
 - Capacitance and frequency measurement
 - Diode and acoustic continuity test
 - Attenuation measurement (dBm)
 - Temperature measurement
- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - MIN/MAX, relative and peak value measurement
 - Additional bar graph display (41 segments)
 - Backlight
 - Shock-proof and impact-resistant thanks to standard protective holster
 - Auto power-off
- Product highlights**
- AC/DC true RMS measurement (TRMS)
 - Magnetic holster (Magne-Grip™)
 - Duty cycle function
 - RS-232 interface for PC connection (optional „38SW-A“ software available)
 - Current loop measurement: 4–20 mA

Technical Data	
Display:	LCD, 4-digit, 9999 digits
Measurement ranges	
AC voltage:	0.1 mV to 750 V
Basic accuracy:	±(1.2% rdg. + 10 digits)
Frequency range:	45 Hz to 2 kHz
DC voltage:	0.1 mV to 1000 V
Basic accuracy:	±(0.25% rdg. + 5 digits)
Input resistance:	10 MΩ
Current AC:	0.1 μA to 10 A
Basic accuracy:	±(1.5% rdg. + 20 digits)
Frequency range:	45 Hz to 1 kHz
Current DC:	0.1 μA to 10 A
Basic accuracy:	±(0.5% rdg. + 10 digits)
Resistance:	0.1 Ω to 40 MΩ
Basic accuracy:	±(0.5% rdg. + 8 digits)
Continuity:	R < 40 Ω
Frequency:	3.00 Hz to 10 MHz
Basic accuracy:	±(0.1% rdg. + 5 digits)
Capacitance:	0.01 nF to 400.0 μF
Basic accuracy:	±(3.0% rdg. + 10 digits)
Temperature:	-20°C to 1300°C
Basic accuracy:	±(1.0% rdg. + 3°C)
Current loop measurement:	(4–20 mA) 0 to 100%
Basic accuracy:	±(0.5% + 5 digits)
Attenuation:	-13 dBm to +50 dBm
Basic accuracy:	±(0.7 dB + 8 digits)
Pollution degree:	2
Measurement category:	CAT IV/600 V, CAT III/1000 V
Safety cert.:	EN 61010, IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	196 x 92 x 60 mm
Weight:	approx. 492 g (incl. battery)

Scope of supply:	
1 x 38XR-A	
2 x test leads	
1 x temperature probe (0–200°C)	
1 x magnetic holster	
1 x temperature adapter	
1 x 9 V battery, IEC 6LR61	
1 x user manual	

Ordering Information:	
Description	Order No.
38XR-A	2727824
38SW-A (Software and RS232-cable)	2727813
VC221B (Carrying case)	3068271
TL245A (Test lead set)	3034444

Multimeter (Kits)



AMPRB-EU01 Junior-Kit

Contents

- 15XP-B (digital multimeter)
- ACD-6 Pro (digital current clamp)
- TPP1-C1 (contact thermometer)
- EU-200 test lead set with
2 test leads,
2 test probes 4 mm,
2 crocodile clips CAT III/1000 V
- Hard carrying case

Scope of supply:

- 1 x 15XP-B
- 1 x ACD-6 PRO
- 1 x TPP1-C1
- 1 x EU-200
- 1 x Hard carrying case

Ordering Information:

Description	Order No.
AMPRB-EU01	3346066



AMPRB-EU02 Professional kit

Contents

- 34XR-A (TRMS multimeter)
- ACDC-100 TRMS (digital AC/DC current clamp)
- IR608A infrared thermometer
- EU-200 test lead set with
2 leads,
2 test probes (4 mm),
2 crocodile clips (CAT III/1000 V)
- Hard carrying case

Scope of supply:

- 1 x 34XR-A
- 1 x ACDC-100 TRMS
- 1 x IR608A
- 1 x EU-200
- 1 x Hard carrying case

Ordering Information:

Description	Order No.
AMPRB-EU02	3346075

Multimeter (Automotive, LCR)



AU92 Automotive multimeter

- Functions**
- Current and voltage measurement
 - Capacitance and frequency measurement
 - Diode and acoustic continuity test
 - Temperature measurement RPM measurement (rotational speed) for 2- and 4-stroke engines
 - Dwell angle measurement
- Product information**
- Automatic and manual range selection
 - Integrated measurement memory (data hold)
 - MIN/MAX, relative and peak value measurement
 - Shock-proof and impact-resistant thanks to standard protective holster
 - Auto power-off
- Product highlights**
- Ideal for automotive fault finding

Technical Data	
DC VOLTS	400 mV, 4 V, 40 V, 400 V, 600 V
Resolution	0.1 mV
Input impedance	400 mV >100 MΩ 4 V:10 MΩ 40 V ~ 600 V: 9.1 MΩ
Overload protection	600VDC or AC rms
AC VOLTS	400 mV, 4 V, 40 V, 400 V, 600 V
AC VOLTS	400 mV (50 ~ 100 Hz)
AC VOLTS	4, 40, 400, 600 V (50 ~ 500 Hz)
Resolution	0.1 mV
Input impedance	400 mV >100 MΩ 4 V 10 MΩ 40 V ~ 600 V: 9.1 MΩ
Overload protection	600 VDC or AC rms
DC CURRENT	400 μA, 4000 μA, 40 mA, 400 mA, 10 A
DC CURRENT	400 μA to 400 mA ranges
DC CURRENT	10 A range
Power supply	1 x 9 V battery IEC 6F22
Dimensions	165 x 78 x 50 mm
Weight	315 g including holster

- Scope of supply:**
- 1 x AU92
 - 1 x inductive pick-up probe
 - 1 x test lead set (one black, one red)
 - 1 x test lead extender tip (threaded)
 - 2 x alligator clips (threaded)
 - 1 x temperature adapter (TA-1A)
 - 1 x temperature sensor (TP-255A)
 - 1 x spare fuse (500 mA) FP520
 - 1 x 9V battery, IEC 6F22
 - 1 x carrying case
 - 1 x user manual

Ordering Information:	
Description	Order No.
AU92	2805913



- ## LCR55A LCR-Meter
- Functions**
- Resistance measurement
 - 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 Data	
Display:	LCD, 3 1/2-digit, 1999 digits
Measurement ranges	
Resistance:	0.01 Ω to 20 MΩ
Basic accuracy:	±(0.5% rdg. + 5 digits)
Continuity:	R < 30 Ω
Inductance:	1 μH to 200 H
Basic accuracy:	±(3.0% rdg. + 20 digits)
Capacitance:	1 pF to 2000 μF
Basic accuracy:	±(1.0% rdg. + 3 digits)
Diode test: voltage drop	
Accuracy:	±(1.5% rdg. +1 digit)
Transistor test:	(NPN, PNP) hfe, I _{ceo}
Test current:	approx. 1 mA
Test voltage:	3.0 V DC typical
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	183 x 79 x 38 mm
Weight:	approx. 311 g (incl. battery)

- Scope of supply:**
- 1 x LCR55A
 - 2 x test leads
 - 2 x crocodile clips
 - 1 x 9 V battery, IEC 6LR61
 - 1 x user manual

- Accessories:**
- Carrying case CC-ACDC

Ordering Information:	
Description	Order No.
LCR55A	3026976
CC-ACDC	2732643



VP-440 RT Non-contact VoltProbe

Functions

- Non-contact, optical detection of AC voltages
- Fast, accurate detection of cable breaks in open-ended cables, e.g. cable drums

Product information

- Compact, handy design that fits in any pocket
- Wide range of applications in trade and industry

Technical Data

Display:	1 LED
Voltage range:	50-1000 V AC
On-time:	constant
Measurement category:	CAT III/1000 V
Safety cert.:	EN 61010
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	160 x 25 x 21 mm
Weight:	approx. 55 g

Scope of supply:

1 x VP-440
2 x 1.5 V battery, IEC LR03
1 x user manual

Ordering Information:

Description	Order No.
VP-440 RT	2744768



VT201A Non-contact voltage detector

Functions

- Non-contact, optical and acoustic detection of AC voltages
- Fast, accurate detection of cable breaks in openended cables, e.g. cable drums

Device information

- Compact, handy design that fits in any pocket
- Wide range of applications in trade and industry

Product highlights

- On/off button

Technical Data

Display:	1 LED, beeper
Voltage range:	70-440 V AC
Frequency range:	50/60 Hz
Power supply:	2 x 1.5 V battery, IEC LR44
Dimensions:	130 x 20 x 17 mm
Weight:	approx. 30 g

Scope of supply:

1 x VT201A
2 x 1.5 V battery, IEC LR44 (inserted)
1 x user manual

Ordering Information:

Description	Order No.
VT201A	3027024

Voltage testers



Scope of supply:

1 x VP-450-E
2 x 1.5 V battery, IEC LR03
1 x user manual

VP-450-E Non-contact volt probe

Functions

- Non-contact, optical and acoustic detection of AC voltages
- Fast, accurate detection of cable breaks in open-ended cables, e.g. cable drums

Product information

- Reliable, automatic self-test of activated device with optical readiness indicator
- Compact, handy design that fits in any pocket
- Wide range of applications in trade and industry

Product highlights

- On/off switch

Technical Data

Display:	1 LED
Voltage range:	50-600 V AC
Frequency range:	50-500 Hz
On-time:	constant
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	140 x 24 x 20 mm
Weight:	approx. 50 g

Ordering Information:

Description	Order No.
VP-450-E	3454746



Scope of supply:

1 x VP-460-E
2 x 1.5 V battery, IEC LR03
1 x user manual

VP-460-E Non-contact volt probe with screwdriver insert

Functions

- Non-contact, optical and acoustic detection of AC voltages
- Direct voltage test via screwdriver blade
- Continuity test
- Fast, accurate detection of cable breaks in open-ended cables, e.g. cable drums

Product information

- Reliable, automatic self-test of activated device with optical readiness indicator
- Compact, handy design that fits in any pocket

Product highlights

- Integrated, ultra-bright flashlight
- Fixed, high-quality screwdriver insert (chrome, vanadium, molybdenum blade)

Technical Data

Display:	2 LEDs
Voltage range:	50-600 V AC
Frequency range:	50-500 Hz
Voltage:	0-3 MΩ
Continuity test:	approx. 0.3 μA
Test current:	constant
On-time:	constant
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	160 x 25 x 21 mm
Weight:	approx. 55 g

Ordering Information:

Description	Order No.
VP-460-E	3454754



Scope of supply:

1 x MT-2000-E
2 x 1.5 V battery, IEC LR03
1 x user manual

MT-2000-E Non-contact volt probe with magnetic field detection

Functions

- Non-contact, optical and acoustic detection of AC voltages
- Fast, accurate detection of cable breaks in open-ended cables, e.g. cable drums
- Optical signal for detection of magnetic fields, e.g. on magnetic coils or permanent magnets

Product information

- Compact, handy design that fits in any pocket
- Wide range of applications in trade and industry

Technical Data

Display:	2 LEDs
Voltage range:	50-600 V AC
Frequency range:	50-500 Hz
Voltage:	constant
On-time:	constant
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010
Power supply:	2 x 1.5 V battery, IEC LR03
Dimensions:	140 x 24 x 20 mm
Weight:	approx. 50 g

Ordering Information:

Description	Order No.
MT-2000-E	3454731

Voltage testers/Phase Sequence indicator



VP-700-E Voltage tester with rotation field indication

Functions

- Voltage test
- Two pole phase rotation indication, »no third hand required«
- Indication of polarity

Product information

- Switchable Load of 140 W with two push buttons, tripping of 30 mA RCD
- IP 64, splash-proof and dust-tight protection
- Probe tip protection for reducing the danger of injuries (attached to lead - permanently available)

Product highlights

- No unawared tripping of RCD
- No battery required
- Quick single-hand on 19 mm contact distance outlets, without removing test probe from instrument

Technical Data

Display	LED row ±12, ±24, 50, 120, 230, 400, 690 V
Voltage range	12...690 V AC/DC
Frequency range	DC, 40...70 Hz
Voltage AC/DC automatic indication	
Internal load	approx. 2,4 W at 690 V
Test current	≤ 3,5 mA (without use of push buttons)
Switchable load	approx. 140 W at 690 V (with use of push buttons, temporary)
Test current with load	≤ 200 mA (with use of push buttons)
Operation time (DT)	30 s
Power Supply	from test object
Auto-Power-On	> 12 V AC/DC, with use of push buttons > 24 V AC/DC, without use of push buttons
Phase Rotation Indication	
Voltage range	100...400 V AC (against earth)
Frequency range	40...70 Hz
Measurement category	CAT IV / 600 V, CAT III / 690 V
Pollution degree	2
Protection degree	IP 64, splash-proofed and dust-tight protection
Safety complying to	EN 61243-3
Dimensions	approx. 280 x 78 x 35 mm
Weight	approx. 255 g

Scope of supply:

1 x VP-700-E
2 x GS38 Protection
1 x user manual

Ordering Information:

Description	Order No.
VP-700-E	3476390



PRM-4 Phase sequence indicator and motor rotation tester

Functions

- Displays phase sequence
- Displays motor rotation

Product information

- Fast detection of phase sequence in three-phase system
- De-energised, safe detection of three-phase motor connections, i.e. the anticipated rotation direction is indicated before the motor is started

Technical Data

Voltage range:	50-600 V
Frequency range:	45-65 Hz
Pollution degree:	2
Measurement category:	CAT III/600 V
Safety cert.:	EN 61010-1, EN 61557-7, IEC 61557-7
Power supply:	1 x 9 V battery, IEC 6F22
Dimensions:	139 x 68 x 32 mm
Weight:	approx. 200 g

Scope of supply:

1 x PRM-4
1 x carrying case
3 x crocodile clip
1 x 9 V battery, IEC 6F22
1 x user manual

Ordering Information:

Description	Order No.
PRM-4	3239635

Installation testers



DGC-1000 A

Clamp meter for earth loop measurement

Functions

- Earth loop measurement range: 0.025-1500 Ω
- Leakage 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 system without setting of earth stakes
- TRMS current measurement

Technical Data

Display:	LCD, 4-digit, 9999 digits
Display range/resolution	
Earth resistance:	0.025-1500 Ω
Leakage current:	0.2-1.000/10.00/100.0/1000 mA 0.001/0.01/0.1/1 mA
Current:	0.2-4.000 A/30 A 0.001/0.01 A
Measurement memory for 116 readings	
Recording interval:	1-255 s
General	
Crest factor:	< 3
Pollution degree:	2
Measurement category:	CAT III/300 V, CAT II/600 V
Safety cert.:	IEC 61010
Jaw opening:	$\varnothing$ 23 mm
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	257 x 100 x 47 mm
Weight	approx. 640 g

Scope of supply:

- 1 x DGC-1000A
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual
- 1 x calibration loop
- 1 x carrying case

Ordering Information:

Description	Order No.
DGC-1000 A	2731217



TELARIS® EARTH-TEST

Functions

- Measurement of earth resistance
- Measurement of specific earth resistance

Product information

- Integrated constant current measurement principle enables use in sandy or rocky environments
- Monitoring and display of auxiliary earth and probe resistances
- Display of active test current
- Automatic and manual selection of measurement frequency for interference reduction
- Test voltage preselection
- Large, clear display to enable easy reading of measured values and units
- Auto power-off

Product highlights

- 2-, 3-, and 4-pole earth measurement
- Specific earth measurement according to Wenner method

Technical Data

Display:	LCD, 3-digit, 1999 digits
Measurement principle:	current-voltage measurement
Measurement range/resolution	
Earth resistance:	0.05-19.99 Ω /0.01 Ω 20-199.9 Ω /0.1 Ω 200 Ω /1 Ω
Tolerance:	$\pm$ (4% rdg. + 2 digits/0.1 Ω)
Probe resistance:	0.1-50 k Ω /0.1 k Ω
Tolerance:	$\pm$ (10% rdg. + 3 digits)
Measurement current display:	0.1-13 mA/0.1 mA
Tolerance:	$\pm$ (10% rdg. + 3 digits)
Max. measurement current:	approx. 12 mA
Max. measurement voltage:	25 V/50 V AC, switchable
Frequency:	127 Hz/140 Hz, switchable
Safety cert.:	EN 61010, IEC 61010, EN 61557, IEC 61557
Measurement category:	CAT III/300 V
Pollution degree:	2
Protection category:	IP 50
Power supply:	6 x 1.5 V battery, IEC LR6
Dimensions:	235 x 105 x 70 mm
Weight:	approx. 640 g

Scope of supply:

- 1 x TELARIS EARTH-TEST
- 2 x test leads
- 2 x crocodile clips
- 1 x holster
- 1 x carrying case
- 6 x 1.5 V battery, IEC LR6
- 1 x user manual



Accessories:

Earth testing accessory kit AMPRB-ET4

Ordering Information:

Description	Order No.
TELARIS EARTH-TEST	2147319
AMPRB-ET4	3352363



AMB-25 Digital insulation tester up to 1000 V

Functions

- Insulation measurement
- Resistance measurement
- Continuity test with beeper

Product information

- Measurement memory for 9 readings
- Lock function enables continuous operation
- Additional bar graph display
- Auto power-off

Product highlights

- Adjustable test time

Technical Data

Display:	LCD, 3 1/4-digit, 3999 digits
Display range/resolution	
Insulation resistance:	0-40.00/400.0 MΩ, 0.01 kΩ/0.1 MΩ (at 250 V) 0-400.0/1000 MΩ/1 GΩ (at 500 V) 0-400.0/2000 MΩ/1 GΩ (at 1000 V) 0.1 MΩ/1 MΩ
Test voltage:	250, 500, 1000 V
Test current:	> 1 mA
Resistance measurement:	0-999.9 Ω/0.1 Ω (tone at < 40 Ω)
Measurement memory for 9 readings	
Safety cert.:	EN 61010, IEC 61010, EN 61557-2, IEC 61557-2
Measurement category:	CAT III/600 V
Pollution degree:	2
Power supply:	6 x 1.5 V battery, IEC LR6
Dimensions:	215 x 110 x 70 mm
Weight:	approx. 880 g

Scope of supply:

- 1 x AMB-25
- 2 x test leads
- 1 x holster
- 6 x 1.5 V battery, IEC LR6
- 1 x user manual

Ordering Information:

Description	Order No.
AMB-25	2730991



AMB-45 Digital insulation tester up to 1000 V

Functions

- Insulation measurement
- Voltage measurement
- Resistance measurement
- Continuity test with beeper

Product information

- Measurement memory for 4000 readings
- RS-232 interface for transferring stored measurements to a PC
- Lock function enables continuous operation
- Additional bar graph display
- Integrated protective holster
- Auto power-off

Product highlights

- Adjustable test time

Technical Data

Display:	LCD, 3 1/4-digit, 4500 digits
Display range/resolution	
Insulation resistance:	0-4.000/40.00/400.0/4000 MΩ, 0.01/0.01/0.1/1 MΩ
Test voltage:	250, 500, 1000 V
Test current:	> 1 mA
Voltage measurement:	0-600 V AC/DC / 1 V
Resistance measurement:	0-400.0/4000 Ω/0.1/1 Ω (tone at < 40 Ω)
Test current:	200 mA DC
Measurement memory for 4000 readings	
Safety cert.:	EN 61010, IEC 61010, EN 61557-2, IEC 61557-2
Measurement category:	CAT III/600 V
Pollution degree:	2
Power supply:	8 x 1.5 V battery, IEC LR6
Dimensions:	225 x 110 x 54 mm
Weight:	approx. 830 g (incl. batt.)

Scope of supply:

- 1 x AMB-45
- 2 x test leads
- 2 x crocodile clip
- 2 x test probe
- 8 x 1.5 V battery, IEC LR6
- 1 x user manual
- 1 x carrying case
- 1 x CD with AMB-45 software
- 1 x RS-232 interface cable

Ordering Information:

Description	Order No.
AMB-45	2731024

Installation testers



AMB-5kV Analogue insulation tester up to 5 kV

Functions

- Insulation measurement
- Voltage measurement

Product information

- Tests insulation of underground cables, energy cables, transformers, electrical machines etc.

Product highlights

- Test voltages up to 5000 V DC
- Measurement range up to 500 GΩ
- Safety test leads with high-voltage probes

Technical Data

Display:	analogue, 90 mm scale length
Class:	1.5
Insulation resistance measurement range:	500 kΩ to 500 GΩ
Basic accuracy:	±2 mm of scale length
Test voltage:	500/1000/2500/5000 V DC
Test current:	approx. 1.3 mA
Voltage measurement range:	0-600 V AC/DC
Basic accuracy:	±2% of upper range value
Safety cert.:	EN 61010, IEC 61010, EN 61557, IEC61557-2
Measurement category:	CAT II/600 V
Pollution degree:	2
Power supply:	4 x 1.5 V battery, IEC LR20
Dimensions:	345 x 130 x 250 mm
Weight:	approx. 4.5 kg

Scope of supply:

- 1 x AMB-5kV
- 3 x test leads
- 2 x test probes
- 2 x crocodile clips
- 4 x 1.5 V battery, IEC LR20
- 1 x user manual

Ordering Information:

Description	Order No.
AMB-5kV	2731036



TELARIS® ISO-PRO

Functions

- Insulation measurement
- Low ohm measurement
- Voltage measurement

Product information

- Memory for approx. 500 readings
- IR/RS-232 interface for transferring stored measurements to a PC
- Optional logging software available
- Presettable limit values for insulation resistance measurements
- Test lead compensation for exact zero-point adjustment
- Additional bar graph display for insulation measurement
- Large, clear display to enable easy reading of measured values and units
- Backlit display
- Auto power-off

Product highlights

- Adjustable measurement timer enables measurements over longer periods of time
- Test of response voltage of overvoltage suppressors (varistors)
- Also suitable for insulation measurements on floors and walls according to DIN VDE 0100, part 600

Technical Data

Display:	LCD, 3 1/2-digit, 1999 digits with bar graph
Measurement range/resolution	
Insulation resistance:	0.005-1.999 MΩ/1 kΩ 2-19.99 MΩ/10 kΩ, 20-199.9 MΩ/1 MΩ 100 kΩ, 200-1999 MΩ/1 MΩ
Test voltage:	100/250/500/1000 V DC
Voltage:	0-600 V AC/DC / 1 V
Measurement timer:	0, 10, 30, 180 s (adjustable)
Voltage protection level:	10-1000 V DC, 6-625 V AC
Low ohm measurement:	0.03-19.99 Ω/0.01 Ω
Test current:	> 200 mA
Measurement memory:	approx. 500 readings
Interface:	IR/RS-232
Safety cert.:	EN 61010, IEC 61010, EN 61557-4, IEC 61557-4
Measurement category:	CAT III/600 V
Pollution degree:	2
Protection category:	IP 50
Power supply:	6 x 1.5 V battery, IEC LR6
Dimensions:	235 x 105 x 70 mm
Weight:	approx. 660 g

Scope of supply:

- 1 x TELARIS ISO-PRO
- 2 x test leads
- 2 x crocodile clips
- 1 x test probe (PSA 4), attachable
- 2 x test probes
- 1 x holster
- 1 x carrying case
- 6 x 1.5 V battery, IEC LR6
- 1 x user manual

Ordering Information:

Description	Order No.
TELARIS ISO-PRO	3087232



TELARIS® LOOP-TEST

Functions

- Measurement of loop resistance and short circuit current without tripping RCD/FI
- Measurement of internal line resistance and short circuit current
- Separate analysis of individual conductor resistances: protective earth resistance, phase resistance and neutral resistance
- Voltage and frequency measurement

Product information

- Memory for 250 readings
- IR/RS-232 interface for transferring stored measurements to a PC
- Optional logging software available
- Integrated socket test with contact electrode for quick identification of incorrectly connected sockets or missing protective earth
- Preselection of max. permitted contact voltage
- Large, clear display to enable easy reading of measured values and units
- Auto power-off

Product highlights

- Patented procedure for determining loop resistance and short circuit current without tripping all of the RCD/FI

Scope of supply:

- 1 x TELARIS LOOP-TEST
- 1 x test lead with schuko plug
- 1 x 3-pole test lead
- 3 x crocodile clip
- 3 x test probes
- 1 x holster
- 1 x carrying case
- 1 x 9 V battery, 6 LR 61
- 1 x user manual

Technical Data

Display:	LCD, 3 1/2-digit, 1999 digits
Measurement range/resolution/tolerance	
Loop resistance:	0.05-1999 Ω /0.01-1 Ω / $\pm(8\% \text{ rdg.} + 8 \text{ digits})$
Internal line resistance:	0.05-19.99 Ω /0.01/ $\pm(6\% \text{ rdg.} + 6 \text{ digits})$
Neutral resistance:	0.05-19.99 Ω /0.01/ $\pm(6\% \text{ rdg.} + 8 \text{ digits})$
Protective earth resistance:	0.05-1999 Ω /0.01-1 Ω / $\pm(7\% \text{ rdg.} + 8 \text{ digits})$
Phase resistance:	0.05-19.99 Ω /0.01/ $\pm(6\% \text{ rdg.} + 8 \text{ digits})$
Short circuit current:	1 A-4.6 kA/1 A, 10 A
Voltage:	0-300 V/1 V/ $\pm(5\% \text{ rdg.} + 5 \text{ digits})$
Mains frequency:	10-200 Hz/0.1 Hz/ $\pm(1\% \text{ rdg.} + 2 \text{ digits})$
Contact voltage:	25 V/50 V (switchable)
Measurement memory:	approx. 250 readings
Interface:	IR/RS-232
Safety cert.:	EN 61010, IEC 61010; EN 61557, IEC 61557
Measurement category:	CAT III/300 V
Pollution degree:	2
Protection category:	IP 50
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	235 x 105 x 70 mm
Weight:	approx. 500 g

Ordering Information:

Description	Order No.
TELARIS LOOP-TEST EUR	3087175
TELARIS LOOP-TEST UK	3087194

Important points regarding loop impedance measurement

In highly built-up areas, it is very difficult to isolate the probes from regional voltages drops associated with earth electrodes and auxiliary earths. As an alternative, if there is a supply voltage present, a loop impedance measurement can be performed directly by the earth electrode to be tested.

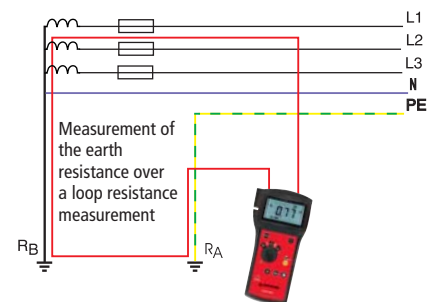
The result of the measurement is then higher as it includes the resistance of the outer conductor. The true earth resistance is thus lower than the value measured. By measuring the loop impedance, it is possible to calculate the short-circuit current that would flow in the event of a fault and trip an upstream overcurrent protection device (fuse).

The loop impedance must be so low that a sufficiently high short-circuit current can flow. This is the only way that the required maximum tripping time of the overcurrent protection device can be

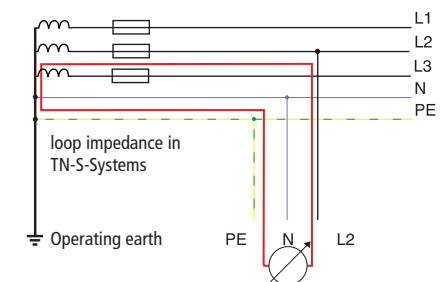
achieved. For fuses, the disconnecting time is 5 seconds, while a conventional power circuit breaker must trip within 0.4 seconds. The loop consists of the resistance of the current source, the resistance of the outer conductor to the current source and the resistance of the return conductor to the current source.

The measurement is performed by briefly supplying the circuit with a constant current and measuring the voltage before and while the current is flowing using a test resistor that is integrated in the device. As a result of the test current, a voltage drop occurs in the current loop, causing the voltage across the test resistor to drop briefly.

The loop impedance and short-circuit current can then be calculated from the voltage difference. To check loop impedance, only meters that comply with DIN VDE 0413, EN 61557, IEC 61557 may be used.



Earth Tests by use of loop impedance test



Loop impedance measurement L2-PE

Installation testers



TELARIS® 0100-PLUS

Functions

- Loop resistance measurement up to 265 V
- Measurement of internal line resistance up to 440 V
- Measurement of short circuit current
- RCD/FI measurement (contact voltage, trip time, trip current — with rising current)
- Low ohm measurement
- Insulation measurement with 100, 250, 500 V
- Voltage and frequency measurement
- Phase rotation test

Product information

- Memory for 500 readings
- IR/RS-232 interface for transferring stored measurements to a PC or external printer
- Optional logging software available; log layout according to ZVEH
- Integrated socket test with contact electrode for identification of incorrectly connected sockets or missing protective earth
- Large, clear display to enable easy reading of measured values and units
- Auto power-off

Product highlights

- Measurement of loop resistance and short circuit current without tripping RCD/FI

Technical Data

Display:	LCD, 3 1/2-digit, 1999 digits
Measurement range/resolution	
Voltage:	1-440 V/1V AC/DC
Frequency:	10-99.9 Hz/0.1 Hz
Loop resistance:	0.15-19.99/199.9/1999 Ω 0.01/0.1/1 Ω
Short circuit current:	0.10 A to 1.7 kA/0.01 A to 0.1 kA
Input voltage range:	195-264 V 50/60 Hz
Test current:	approx. 4.6 A (at 230 V)
Internal line resistance:	0.15-19.99/199.9/1999 Ω, 0.01/0.1/1 Ω
Short circuit current:	0.10 A to 2.7 kA/0.01 A to 0.1 kA
Input voltage range:	195-440 V 50/60 Hz
Test current:	approx. 4.6 A (at 230 V)
Loop resistance without tripping RCD/FI:	0.5-19.99/199.9/1999 Ω, 0.01/0.1/1 Ω
Short circuit current:	0.50 A to 0.5 kA/0.01 A to 0.1 kA
Input voltage range:	195-264 V 50/60 Hz
Test current:	approx. 5 mA (at 230 V)
Insulation resistance:	0.05-19.99/199.9 MΩ, 0.01/ 0.1 MΩ
Test voltage:	100, 250, 500 V DC
Low ohm measurement:	0.05-19.99/199.9/1999 Ω, 0.01/0.1/1 Ω
Test current:	> 200 mA DC
RCD/FI nominal fault currents:	10, 30, 100, 300, 500 mA, 0.5 x 30 mA, 5 x 30 mA
Selective:	100, 300, 500 mA
Measurement functions:	contact voltage, trip time, trip current test with rising test current
Contact voltage:	1-63 V
Earth resistance:	10-1999 Ω/19.99 kΩ/1 Ω/ 0.01 kΩ
Trip time:	1-500 ms/1 ms
Trip current:	40-140% of IΔN (in 10% steps)
Phase rotation test	
Input voltage range:	100-440 V 50/60 Hz
Measurement memory:	approx. 500 readings
Interface:	IR/RS-232
Safety cert.:	EN61010, IEC61010, EN61557, IEC6155
Measurement category:	CAT III/440 V
Pollution degree:	2
Protection category:	IP 40
Power supply:	6 x 1.5 V battery, IEC LR6
Dimensions:	235 x 105 x 70 mm
Weight:	approx. 650 g

Scope of supply:

- 1 x TELARIS 0100-PLUS
- 1 x test lead with schuko plug
- 3 x test lead with safety plug
- 3 x crocodile clips
- 3 x test probes
- 1 x holster
- 1 x carrying case
- 6 x 1.5 V battery, IEC LR6
- 1 x user manual



Ordering Information:

Description	Order No.
TELARIS 0100-PLUS EUR	3087130
TELARIS 0100-PLUS UK	3087166
TELARIS 0100-PLUS CH	3087153



TELARIS® RCD-TEST

Functions

- Testing of all common RCD/FI, incl. selective and AC/DC-sensitive types
- Measurement of contact voltage without tripping RCD/FI breaker
- Tripping with nominal current or rising test current
- Automatic RCD/FI analysis for testing all RCD/FI parameters
- Display of earth resistance

Product information

- Memory for 100 readings
- IR/RS-232 interface for transferring stored measurements to a PC
- Optional logging software available
- Preselectable test current: x 0.5/x 1/x 2 and x 5
- Wave form preselectable for AC/DC-sensitive RCD/FI
- Integrated socket test with contact electrode for quick identification of incorrectly connected sockets or missing protective earth
- Large, clear display to enable easy reading of measured values and units
- Auto power-off

Product highlights

- Testing of DC-sensitive RCD/FI (type B)

Technical Data

Display:	LCD, 3 1/2-digit, 1999 digits
Measurement range/resolution	
RCD/FI nominal fault currents:	10/30/100/300/500 mA/1 A, selective: 100 mA/300 mA/500 mA/1 A
Contact voltage:	0.6-70 V/0.1 V
Tolerance:	(-0% to +10%) + 6 digits
Trip time:	2-1999 ms/1 ms
Accuracy:	±(2% + 2 digits)
Test current type:	AC, DC and pulsating current
Earth resistance:	0.01-1999 Ω/1 Ω
Accuracy:	±(10% + 10 digits)
Mains voltage:	230 V +10%/-15%
Measurement memory:	approx. 100 readings
Interface:	IR/RS-232
Safety cert.:	EN 61010, IEC 61010; EN 61557, IEC 61557
Measurement category:	CAT III/300 V
Pollution degree:	2
Protection category:	IP 50
Power supply:	6 x 1.5 V battery, IEC LR6
Dimensions:	235 x 105 x 70 mm
Weight:	approx. 650 g

Scope of supply:

- 1 x TELARIS RCD-TEST
- 1 x test lead with schuko plug
- 1 x 3-pole test lead
- 3 x crocodile clips
- 3 x test probes
- 1 x holster
- 1 x carrying case
- 6 x 1.5 V battery, IEC LR6
- 1 x user manual

Ordering Information:

Description	Order No.
TELARIS RCD-TEST EUR	3087203
TELARIS RCD-TEST UK	3087215



DAA-16, DAA-32



DAK-16, DAK-32

DAA-16, DAA-32

Three-phase adapter 16 A or 32 A

- Three-phase connector CEE 16 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 at installation tests according to IEC/EN 60364

DAK-16, DAK-32

Three-phase adapter 16 A or 32 A

- Three-phase coupling CEE 16 A
- Connections via five separate 4 mm sockets for L1, L2, L3, N and PE
- For quick connection of three-phase consumer loads at appliance tests in accordance with DIN VDE 0701-0702

Ordering Information:

Description	Order No.
DAA-16	2743806
DAA-32	2743850
DAK-16	2743814
DAK-32	2743823

Machinery tester



MT 204-S Machinery tester in accordance with EN 60204-1

Functions

- Measurement of protective earth resistance
- Loop/Line impedance measurement
- Insulation resistance measurement
- Residual voltage measurement
- High-voltage test

Product information

- Measurement memory for approx. 2000 readings
- Integrated interface (USB 2.0) for transferring measurements to PC
- Separate interface (USB 2.0) for connecting a barcode scanner
- Graphical LCD for measured values, limit values and parameters
- Wiring diagrams and limit values on device lid
- Compact carrying case
- One pair of sockets for all measurements
- Test lead compensation
- High-voltage test with adjustable value for trip current
- Optical and acoustic limit value display

Product highlights

- 10 A test current for protective earth resistance
- 0.2 A test current for protective earth resistance
- Loop/line impedance measurement up to 440 V
- Display of short circuit current (PSC)
- Insulation measurement with 250 V to 500 V test voltage
- Residual voltage measurement; display of discharge voltage/time
- Integrated high-voltage test (can be deactivated via key switch)

Technical Data

Display:	graphical LCD, 128 x 64 pixels
Display range/resolution	
Protective earth resistance: (10 A)	0.00-20.00 Ω/0.01 Ω
Max. Test current/voltage:	> 10 A / > 4 V AC
Protective earth resistance: (0.2 A)	0.00-4.00 Ω/0.01 Ω
Test current/voltage:	> 0.2 A / > 4 V AC
Loop/line impedance:	0.00-20.00 Ω/0.01 Ω
Test current:	20 A (10 ms) at 230 V
Voltage range:	190-440 V
Short circuit current:	11.5 A to 23 kA
Insulation resistance:	0.00-100.0 MΩ, 0.01 MΩ, 0.1 MΩ
Test voltage/current:	250 V to 500 V (in 10 V steps)/>1 mA DC
Residual voltage measurement range:	0.0-400 V AC/DC
Measurement time:	1 s, 5 s
Time measurement range:	0-300 s
High-voltage test voltage/current:	1000 V/50 mA AC
Trip current:	5, 10, 25, 50 mA (adjustable)
Measurement memory:	up to 2000 readings
Interfaces (USB 2.0):	PC and barcode scanner
Limit value display:	optical and acoustic
Safety cert.:	IEC/EN 61010-1, EN 61557 parts 2, 3, 4
Measurement category:	CAT IV/300 V, CAT III/600V
Pollution degree:	2
Protection class:	I
Protection category:	IP 40
Power supply:	230 V +10%/-15% 50 Hz, max. 100 VA
Dimensions:	340 x 310 x 170 mm
Weight:	7 kg

Scope of supply:

- 1 x MT 204-S
- 1 x mains lead
- 2 x safety test lead, 2 m each
- 2 x test lead extension, 10 m each
- 2 x crocodile clips
- 1 x interface cable
- 1 x user manual

Accessories:

- Keyboard, USB (German Version) **KBGE-MT204S**
- Barcode Scanner, USB **BC-MT204S**

Ordering Information:

Description	Order No.
MT 204-S	3454632
KBGE-MT204S	3504388
BC-MT204S	3504407





Scope of supply:

- 1 x PQ55A
- 4 x current clamps
- 4 x crocodile clips, insulated (jaw opening: 40 mm)
- 4 x safety test leads
- 8 x 1.5 V battery, LR6
- 1 x mains adapter
- 1 x RS-232 cable
- 1 x large carrying case
- 1 x PC software (English) for Windows
- XP/2000/ME with extensive manual (German)
- 1 x user manual



PQ55A 3-phase power and energy analyser

Functions

- Comprehensive real-time monitoring, recording and analysis of 3-phase systems
- Voltage measurement (true RMS)
- Current measurement (true RMS)
- Power factor measurement
- Phase angle measurement
- Power analysis (active, apparent and reactive power)
- 4. Current clamp for neutral line measurement
- Suitable for use in housing construction, offices and small businesses

Product information

- Internal 512 kB data logger for long-term monitoring
- Internal measurement memory for up to 99 individual readings
- Multifunctional measured value display for all input signals
- Power supply via batteries or external mains adapter
- Data transfer via optically isolated RS-232 interface
- Windows software for data analysis

Technical Data

Voltage measurement:

3 input channels with common reference point "N"

Measurement range: 0-600 Vrms

Resolution: 0.1 V

Accuracy: $\pm(1\% \text{ rdg.} + 10 \text{ digits})$
for voltages > 80 V

Network frequency: 50 Hz (excl. frequency inverter operation)

Current measurement range

phase 1-3: 3 to 1000 A

Measurement range „N“: 3-250 A, resolution: 0.1 A

Basic accuracy: $\pm(2.5\% \text{ rdg.} + 15 \text{ digits})$
 $\pm 1\%$ for currents > 3 A

Permissible overload: 10% (for sinusoidal currents)

Active power (P)

display range: 0-999.9 kW

Apparent power (S)

display range: 0 to -999.9 kVA

Reactive power (Q)

display range: 0-999.9 kVar

Power factor (PF)

display range: 0 to +1

Phase angle

display range: 0° to 90°

Frequency measurement range

(for voltages > 80 V): 45-85 Hz

Phase sequence detection (for conductor voltages > 80 V)

Energy measurement (active, apparent and reactive power)

Accuracy: $\pm(3.5\% \text{ rdg.} + 20 \text{ digits})$

Data logger: 512 kB, non-volatile memory,

max. 20,000 readings,

max. 10 measurement series,

max. 12,000 readings

per measurement series

Sample rate (adjustable): 5 s, 30 s, 1 min, 2 min

Manual measurement

memory: max. 99 readings

General information

Display: multifunctional LCD

Data transfer via optically isolated RS-232 interface

Frequency range: 42-63 Hz

Power consumption: approx. 10 VA

Pollution degree: 2

Protection class: II

Protection category: IP 30

Measurement category: CAT III/600 V

Safety cert.: EN 61010, IEC 61010

Power supply: 8 x 1.5 V battery, LR6

Battery life: typ. 50 hrs

Mains adapter: 12-15 V/300 mA

Ambient conditions:

Operating temperature: 0°C to +50°C

Storage temperature: -10°C to +60°C

Dimensions

Device (W x H x D): 235 x 117 x 54 mm

Weight (incl. batt.): approx. 730 g

Ordering Information:

Description

PQ55A

Order No.

3037739

Cable locators



USA Patent 5418447 DE Patent 4103234

AT-2032E Cable locator

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

- Product information**
- Set consisting of transmitter and receiver in a robust, shock-proof case
 - Transmitter signal is indicated optically and acoustically
 - Clear, easy-to-follow instruction manual with application examples
 - Additional transmitters are available for extension purposes or to distinguish between multiple signals

- Product highlights**
- All application areas (live or de-energised) are covered without the need for additional devices
 - Accurate locating by means of displaying a specified letter on the receiver

Technical Data	
Display:	LED bar for intensity and 7-segment display on receiver for number or letter indicating the transmitter code
Tracing depth:	0–40 cm
Withstand voltage:	250 V
Measurement category:	CAT II/250 V
Pollution degree:	2
Safety cert.:	EN 61010-1/IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61 (receiver); 2 x 9 V battery, IEC 6LR61 (transmitter)
Dimensions:	380 x 305 x 90 mm (case)
Weight:	approx. 1.8 kg

Scope of supply:

- 1 x cable locator receiver
- 1 x cable locator transmitter
- 4 x test leads
- 3 x 9 V battery, IEC 6LR61
- 2 x crocodile clips, red/black
- 2 x test probes
- 1 x carrying case
- 1 x user manual

Ordering Information:	
Description	Order No.
AT-2032E	3390365



ECB50A-FGIS Fuse finder for live circuits

- Functions**
- Fast and accurate locating of fuses and assignment to circuits
 - Locating and tracing of cables in walls
- Product information**
- Set consisting of transmitter and receiver in robust carrying case
 - Transmitter signal displayed optically and acoustically by the receiver
 - Transmitter with integrated schuko plug enabling easy connection to the schuko socket
 - Simple switching between fuse and cable finder function
 - Continuous sensitivity adjustment of receiver

Information:
ECB50A-E with UK plug also available

Technical Data	
Display:	2 LEDs and 7-segment display on receiver for letter indicating the code of the transmitter
Tracing depth (fuse finder):	0–10 cm
Tracing depth (cable locator):	0–40 cm
Voltage range:	100–250 V AC (50–60 Hz)
Measurement category:	CAT III/300 V
Pollution degree:	2
Safety cert.:	EN 61010-1/IEC 61010
Power supply:	1 x 9 V battery, IEC 6LR61 (receiver) Mains power supply (transmitter)
Dimensions:	180 x 120 x 45 mm (case)
Weight:	approx. 250 g (set)

Scope of supply:

- 1 x ECB50A transmitter
- 1 x ECB50A receiver
- 1 x 9 V battery, IEC 6LR61
- 1 x carrying case
- 1 x user manual

Ordering Information:	
Description	Order No.
ECB50A-FGIS	3027106
ECB50A-E	3027097



LAN-1 LAN Cable Tester

Functions

- Test for wiring faults of LAN cable
- Check Open, Short, Reversed, Crossed and Split Pairs
- Check of shielding

Product information

- Test pin configuration for:
 - 10/100 base -T cable
 - 10 base-2 cable
 - RJ45 modular cables
 - AT&T 258A cable
 - EIA / TIA 568A/568B cables
 - Token Ring Cable
- Test installed cable on wall plate or the patch panels by using the Remote Termination module
- Perform Loopback Test or Remote Test
- Buzzer sound warning for error condition in cable

Technical Data

Display	Two sets of LED lights for Source and Test indication
Connector types	RJ45, BNC
Maximum line length	> 300 meters
Power Supply	9 V battery, IEC 6F22
Dimensions	130 x 56 x 38 mm
Weight	1.26 kg

Scope of supply:

- 1 x LAN-1 Cable tester
- 1 x remote terminator
- 1 x 9 V battery, IEC 6F22
- 1 x RJ45 to female BNC cable
- 1 x RJ45 to male BNC cable
- 1 x RJ45 to RJ45 cable
- 1 x female BNC to female BNC connector
- 1 x users manual

Ordering Information:

Description	Order No.
LAN-1	3052401



TDR-400 Impulse reflectometer

Functions

- Cable length measurement
- Fault location

Product information

- Light and handy impulse reflectometer for measuring cable lengths and locating faults in telecommunication and power cables
- Delay (impulse) measurement, for which only one end of the cable (2 conductors) is required
- Propagation factor adjustable between 0.250 and 0.999
- 10 memory locations for propagation factors
- Integrated rechargeable battery
- Mains adapter included
- Compact carrying case

Technical Data

Display:	dot matrix LCD, 120 x 32 pixels, with backlight
Measurement range:	0–2000 m
Resolution:	0.25 m, 0.5 m, 1 m, 4 m
Propagation factors:	0.250–0.999
Memory locations for propagation factors:	10
Operation via 3 buttons	
Output:	BNC connector (impedance: 75 Ω)
Output pulse:	4 V, 5 ns/100 ns
Power supply:	NiMH rechargeable battery, 6 V/700 mAh (integrated)
Dimensions:	157 x 84 x 30 mm
Weight:	approx. 300 g

Scope of supply:

- 1 x TDR-400
- 1 x mains adapter
- 1 x test lead
- 1 x carrying case
- 1 x user manual

Ordering Information:

Description	Order No.
TDR-400	2744841

Environment



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)

Technical Data

Display:	LCD, 4-digit, 9999 digits
Measurement range (m/s):	0.40-25.00 m/s (resolution: 0.01 m/s) 0.01-99.99 m³ (resolution: 0.01 m³)
Basic accuracy:	±(3% rdg. (m³/s))
Temperature:	0-50°C or 32-122°F (resolution: 0.1°F/°C)
Basic accuracy:	±1.5°F/0.8°C
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	181 x 71 x 38 mm
Weight:	approx. 360 g (incl. battery)

Scope of supply:

- 1 x TMA10A
- 1 x carrying case
- 1 x 9 V battery, IEC 6LR61
- 2 x wire probe
- 1 x user manual



Accessories:

- Records two channels simultaneously incl. Interface Cable (RS-232)
- TM-SWA

Ordering Information:

Description	Order No.
TMA10A	2817785
TM-SWA	3027085



TMA40-A Data logger anemometer with humidity and temperature measurement

Functions

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

Product information

- Integrated measurement memory (data hold)
- Large backlit LCD
- 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

- Data logger for 2400 readings
- USB interface for PC connection

Technical Data

Display:	LCD
Measurement range (m/s):	0.4-32 m/s (resolution: 0.1 m/s) (m³/s) 0-99999 m³ (resolution: 0.1 m³)
Basic accuracy:	±(3% rdg.)
Temperature:	-20 to 70°C or -4 to 158°F (resolution: 0.1°F/°C)
Basic accuracy:	±1°F/0.6°C
Humidity:	0 to 100%
Basic accuracy:	±3% between 10% and 99%
Power supply:	4 x 1.5 V battery, IEC LR03
Dimensions:	165 x 70 x 53 mm
Weight:	approx. 360 g (incl. battery)

Scope of supply:

- 1 x TMA40-A
- 1 x carrying case
- 4 x 1.5 V battery, IEC LR03
- 1 x USB-cable
- 1 x software
- 1 x user manual

Ordering Information:

Description	Order No.
TMA40-A	3477287



TH-3
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 Data

Display:	dual-LCD, 3 1/2-digit
Humidity measurement	
Measurement range:	5 to 95% rel. humidity
Resolution:	0.1%
Accuracy:	±3% rel. humidity
Response time:	< 3 min.
Temperature measurement	
Measurement range:	-20 to +60°C/-4 to +140°F
Resolution:	0.1°C/0.1°F
Accuracy:	±0.8°C/±1.6°F
Response time:	< 10 sec.
Power supply:	1 x 9 V battery, IEC 6LR61 or 6F22
Dimensions:	240 x 54 x 34 mm
Weight:	approx. 180 g

Scope of supply:

- 1 x TH-3
- 1 x carrying case
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual

Ordering Information:

Description	Order No.
TH-3	3027060



THWD-3
Digital humidity and temperature meter

Functions

- Humidity measurement
- Temperature measurement
- Dew point measurement
- Measurement of wet bulb temperature

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 Data

Display:	dual-LCD, 3 1/2-digit
Humidity measurement	
Measurement range:	5 to 95% rel. humidity
Resolution:	0.1%
Accuracy:	±3% rel. humidity
Response time:	< 3 min.
Temperature measurement	
Measurement range:	-20 to +60°C/-4 to +140°F
Resolution:	0.1°C/0.1°F
Accuracy:	±0.8°C/±1.6°F
Response time:	< 10 sec.
Power supply:	1 x 9 V battery, IEC 6LR61 or 6F22
Dimensions:	240 x 54 x 34 mm
Weight:	approx. 180 g

Scope of supply:

- 1 x TH-3 or THWD-3
- 1 x carrying case
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual

Ordering Information:

Description	Order No.
THWD-3	3033042

Environment



LM-100 Digital Luxmeter

- Functions**
- Light measurement
- Product information**
- Manual range selection
 - Silicon sensor
 - Integrated measurement memory (data hold, MAX)

Technical Data	
Display:	LCD 3 1/2-digit
Measurement range:	0-200, 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:	9 V battery, IEC 6F22
Device dimensions:	130 x 63 x 38 mm
Sensor dimensions:	80 x 55 x 29 mm
Weight:	approx. 220 g

Scope of supply:

- 1 x LM-100
- 1 x 9 V battery, IEC 6F22
- 1 x carrying case
- 1 x user manual

Ordering Information:	
Description	Order No.
LM-100	3052348



LM-120 Digital Luxmeter

- Functions**
- Light measurement
- Product information**
- Automatic and manual range selection
 - Silicon sensor
 - Integrated measurement memory (data hold, MAX)
 - Auto power-off
 - Zero adjustment button

Technical Data	
Display:	LCD 3 1/2-digit
Measurement range:	0-20, 0-200, 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:	9 V battery, IEC 6F22
Device dimensions:	130 x 63 x 38 mm
Sensor dimensions:	80 x 55 x 29 mm
Weight:	approx. 220 g

Scope of supply:

- 1 x LM-120
- 1 x 9 V battery, IEC 6F22
- 1 x carrying case
- 1 x user manual

Ordering Information:	
Description	Order No.
LM-120	3052353



SM-10 Sound 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
- Backlight

Technical Data

Display:	LCD, 4-digit
Measurement ranges	
A:	30 to 130 dB (resolution: 0.1 dB)
C:	35 to 130 dB (resolution: 0.1 dB)
Tolerance:	±1.5 dB
Frequency range:	31.5 Hz to 8 kHz
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	200 x 55 x 38 mm
Weight:	approx. 230 g

Scope of supply:

- 1 x SM-10 sound meter
- 1 x 9 V battery, IEC 6LR61
- 1 x carrying case
- 1 x user manual

Ordering Information:

Description	Order No.
SM-10	3052366



SM-20A Sound 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
- Backlight

Product highlights

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

Technical Data

Display:	LCD, 4-digit
Measurement ranges	
A:	30 to 130 dB (resolution: 0.1 dB)
C:	35 to 130 dB (resolution: 0.1 dB)
Tolerance:	±1.5 dB
Frequency range:	31.5 Hz to 8 kHz
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	200 x 55 x 38 mm
Weight:	approx. 230 g

Scope of supply:

- 1 x SM-20A sound meter
- 1 x 9 V battery, IEC 6LR61
- 1 x interface cable
- 1 x software
- 1 x carrying case
- 1 x user manual

Ordering Information:

Description	Order No.
SM-20A	3477333

Environment



SM-CAL1 Sound level calibrator

- Function**
- Calibration of sound level meters
- Device information**
- Two output levels: 94 dB and 114 dB
 - Fits to 1/2" microphones

Technical Data	
Output level	94 dB, 114 dB
Frequency	1000 Hz
Power supply	1 x 9 V battery, IEC 6F22
Dimensions	Ø 48 x 125 mm
Weight	approx. 285 g

Scope of supply:

- 1 x SM-CAL1
- 1 x Adaptor 1/2"
- 1 x 9 V, battery IEC 6F22
- 1 x user manual

Ordering Information:	
Description	Order No.
SM-CAL1	3052382



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 stored)

Technical Data	
Display:	LCD, 5-digit
Measurement ranges	
Rotational speed:	1-99,999 rpm
Surface speed:	0.1-1999 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:	2 x 1.5 V battery, IEC LR6
Dimensions:	180 x 60 x 25 mm
Weight:	approx. 195 g

Scope of supply:

- 1 x TACH20
- 1 x mechanical measurement adapter
- 1 x extension
- 2 x test prod
- 2 x measuring wheel
- 10 x reflective stickers
- 2 x 1.5 V battery, IEC LR6
- 1 x carrying case
- 1 x user manual



- Accessories:**
- Reflective Sticker
(10 pcs., each length 75 mm)

Ordering Information:	
Description	Order No.
TACH20	3311961
Reflective Sticker	2145762



IR608A Infrared thermometer

Functions

- Non-contact temperature measurement

Product information

- Switchable between °C and °F measurement
- Integrated measurement memory (data hold)
- Backlight
- Distance to spot size ratio: 8:1
- Auto power-off

Product highlights

- Laser-based targeting
- Handy and compact „pistol grip“ design

Technical Data

Display:	LCD, 4-digit
Measurement range:	-18 to +400°C, 0 to 750°F
Resolution:	0.2°C/0.5°F
Basic accuracy:	±2% or ±2°C (±3.5°F)
Emissivity:	0.95 (preset)
Response time:	500 ms
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	152 x 101 x 38 mm
Weight:	approx. 227 g

Scope of supply:

- 1 x IR608A
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual

Ordering Information:

Description	Order No.
IR608 A	3015690



TH-1 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

Product highlights

- Compact and handy design

Technical Data

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 +140°F
Resolution:	0.1°C/0.1°F
Accuracy:	±0.6°C/±1°F
Power supply:	1 x 3 V battery, IEC 2032
Dimensions:	175 x 42 x 16 mm
Weight:	approx. 120 g

Scope of supply:

- 1 x TH-1
- 1 x 3 V battery, IEC 2032
- 1 x user manual

Ordering Information:

Description	Order No.
TH-1	3311871

Environment



THWD-5 Digital humidity and temperature meter with external probe

- Functions**
- Humidity measurement
 - Temperature measurement
 - Dew point measurement
 - Measurement of wet bulb temperature

- Product information**
- External probe
 - Switchable between °C and °F measurement
 - Integrated measurement memory (data hold)
 - MIN and MAX data hold
 - Auto power-off

- Product highlights**
- Large backlit LCD

Technical Data	
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 + 60°C/14 to +140°F
Resolution:	0.1°C/0.1°F
Accuracy:	±0.6°C/±1°F
Power supply:	4 x 1.5 V battery, IEC LR03
Dimensions:	175 x 70 x 33 mm
Weight:	approx. 800 g

Scope of supply:

- 1 x THWD-5 incl. probe
- 4 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual

Ordering Information:	
Description	Order No.
THWD-5	3311803



TM45A Digital pen-design thermometer

- Functions**
- Temperature measurement

- Product information**
- Input for type K temperature probe
 - Integrated measurement memory (data hold and MAX hold)
 - Switchable between °C and °F measurement

- Product highlights**
- Handy and compact design

Technical Data	
Display:	LCD, 3-1/2-digit, 1999 digits
Measurement range:	-50.0 to 199.9 (0.1° resolution) -50 to 1300°C (1° resolution) -58.0 to 199.9°F (0.1° resolution) -50°F to 1999°F (1° resolution)
Basic accuracy:	±(0.3% rdg. + 1°C (+ 2°F))
Power supply:	4 x 1.5 V battery, IEC LR03
Dimensions:	approx. 170 x 44 x 40 mm
Weight:	approx. 250 g

Scope of supply:

- 1 x TM45A
- 1 x carrying case
- 4 x 1.5 V battery, IEC LR03
- 1 x wire probe
- 1 x user manual

Ordering Information:	
Description	Order No.
TM45A	3026952



TMD-10 Digital thermometer with two inputs

- Functions**
- Temperature measurement with inputs for two probes
 - Measurement of temperature difference

- Product information**
- Inputs for two temperature probes: type K and type J
 - Integrated measurement memory (data hold)
 - MIN/MAX and relative value measurement
 - Switchable between °C and °F measurement
 - Auto power-off (can be deactivated)

- Product highlights**
- Clear multifunctional display for T1, T2 and T1-T2 (temperature difference)

Technical Data	
Display:	dual-LCD, 5-digit
Type K measurement range:	-200 to +1370°C (-328 to +2498°F)
Type J measurement range:	-200 to +1050°C (-328 to +1922°F)
Basic accuracy:	±(0.05% rdg. + 0.7°C), ±(0.05% rdg. + 1.4°F)
Resolution:	0.1°C/°F
Power supply:	1 x 9 V battery, IEC 6F22
Dimensions:	approx. 130 x 56 x 38 mm
Weight:	approx. 170 g

Scope of supply:

- 1 x TMD-10
- 2 x type K probe
- 1 x 9 V battery, IEC 6F22
- 1 x carrying case
- 1 x user manual

Ordering Information:	
Description	Order No.
TMD-10	3052394



TMD90A

Dual input digital thermometer with RS-232 interface

Functions

- Temperature measurement at two measuring points
- Simultaneous display of both temperatures
- Measurement of temperature difference

Product information

- Inputs for two temperature probes (of types K, J, T, R/S and E)
- Integrated measurement memory (data hold)
- MIN/MAX and relative value measurement
- Switchable between °C and °F measurement
- Backlight
- Auto power-off (can be deactivated)

Product highlights

- RS-232 interface for PC connection
- TM-SWA software (optional)
- Clear multifunctional display for T1, T2 and T1-T2 (temperature difference)

Technical Data

Display:	LCD, 3 1/2-digit, 1999 digits
Type K measurement range:	-200 to 1370°C (resolution: 0.1/1°C), -328 to 2498°F (resolution: 0.1/1°F)
Basic accuracy:	(0.1% rdg. + 0.7°C), (0.1% rdg. + 1.4°F)
Type K measurement range:	-200 to 760°C (resolution: 0.1/1°C), -328 to 1400°F (resolution: 0.1/1°F)
Basic accuracy:	(0.1% rdg. + 0.7°C), (0.1% rdg. + 1.4°F)
Type T measurement range:	-200 to 390°C (resolution: 0.1°C), -328 to 734°F (resolution: 0.1°F)
Basic accuracy:	(0.1% rdg. + 0.7°C), (0.1% rdg. + 1.4°F)
Type R/S measurement range:	0 to 1760°C (resolution: 0.1/1°C), 32 to 3200°F (resolution: 0.1/1°F)
Basic accuracy:	(0.3% rdg. + 0.7°C), (0.1% rdg. + 1.4°F)
Type E measurement range:	-200 to 736°C, 0.1°C, -328 to 1357°F, 1.0°F
Basic accuracy:	(0.3% rdg. + 0.7°C), (0.1% rdg. + 1.4°F)
Power supply:	1 x 9 V battery, IEC 6LR61
Dimensions:	approx. 170 x 44 x 40 mm
Weight:	approx. 250 g

Scope of supply:

- 1 x TMD90A
- 1 x carrying case
- 1 x 9 V battery, IEC 6LR61
- 2 x wire probe
- 1 x user manual



Accessories:

- Records two channels simultaneously incl. Interface Cable (RS-232)
- TM-SWA

Ordering Information:

Description	Order No.
TMD90A	2817797
TM-SWA	3027085



TPP1-C1

Pocket thermometer with immersion probe

Functions

- Temperature measurement with integrated NTC sensor

Product information

- Immersion probe
- Measurement memory (data hold)
- Compact design
- With protective sleeve/holder (TPP1-C1 only)

TPP2-C1

Pocket thermometer with surface probe

Like TPP1-C1, but:

- Surface probe and no protective sleeve/holder

Technical Data

Display:	LCD, 3 1/2-digit	
Measurement range:	-50 to +250°C	
Range	Resolution	Accuracy
-50 to -20°C	1°C	±3°C
-19.9 to +49.9°C	0.1°C	±2°C
+50.0 to 199.9°C	0.1°C	±(3% rdg. + 1°C)
+200 to 250°C	1°C	±(3% rdg. + 1°C)
Temperature		
change/response time:	> 5 K/s	
Power supply:	1 x 3 V battery, IEC 2032	
Dimensions		
(with protective sleeve):	approx. 40 x 30 x 160 mm	
Weight:	approx. 16 g	

Scope of supply:

- 1 x TPP1-C1 or TPP2-C1
- 1 x 3 V battery, IEC 2032
- 1 x user manual

Ordering Information:

Description	Order No.
TPP1-C1	2826634
TPP2-C1	2826652

Environment



TR100-A Temperature Data Logger with Digital Display

Functions

- Temperature measurement
- Data Logger

Product information

- Wall mountable
- Air Temperature displays in Celsius/Fahrenheit is selectable
- Offers visible LEDs warnings to monitor IAQ condition
- Instrument for indoor air quality monitoring
- Memory points selection: 1000, 2000, 4000, 8000, 12000, 16000
- Auto power off function

Product highlights

- USB Interface
- IP65 rated

Technical Data

Display:	LCD, 3¾ digit, 1999 digits
Temperature range:	-40 to 85°C (-40 to 185°F)
Accuracy:	
Temperature:	± 0.6°C / 1°F (-20 to 50°C / -4 to 122°F), ±1.2°C / 1.2°F all others
Sample points:	1K / 2K / 4K / 8K / 12k / 16K
Resolution:	
Temperature:	0.1°C / 0.1°F
LED response Red:	Hi, LO Alarm; Yellow: Record
Protection degree:	IP65
Power supply:	1 x 3 V battery, IEC 2032
Dimension:	75 x 55 x 23 mm
Weight:	approx. 200 g

Scope of supply:

- 1 x TR100-A
- 1 x user manual
- 1 x 3 V battery, IEC 2032
- 1 x USB-cable
- 1 x CD Download Suite

Ordering Information:

Description	Order No.
TR100-A	3477293



TR200-A Temperature / RH Data Logger with Digital Display

Functions

- Temperature measurement
- Relative Humidity measurement
- Data Logger

Product information

- Wall mountable
- Air Temperature displays in Celsius/Fahrenheit is selectable
- Offers visible LEDs warnings to monitor IAQ condition
- Instrument for indoor air quality monitoring
- Memory points selection : 1000, 2000, 4000, 8000, 12000, 16000
- Auto power off function

Product highlights

- USB Interface
- IP54 rated

Technical Data

Display	LCD, 3¾ digit, 1999 digits
Sampling points	1K / 2K / 4K / 8K / 12K / 16K
Resolution Temperature	0.1°C / 0.1°F
RH Resolution	0.1%
LED Red	Hi, LO Alarm Yellow: Record
Measurement ranges	
Temperature	
Internal sensor	-40°C to 85°C (-40°F to 185°F)
External probe	-40°C to 100°C (-40°F to 212°F)
Relative Humidity	0.0 to 99.9%
Accuracy Temperature	±0.6°C (-20°C to 50°C) ±1.2°C for all others ±1°F (-4°F to 122°F) ±1.2°F for all others
Relative Humidity	±3% at 25°C / 77°F 5% for all others
Sensor	Silicon photodiode and filter
Power supply	1 x 3 V battery, IEC 2032
Dimensions	75 x 55 x 23 mm
Weight	approx. 200 g

Scope of supply:

- 1 x TR200-A
- 1 x user manual
- 1 x 3 V battery, IEC 2032
- 1 x USB-cable
- 1 x CD Download Suite

Ordering Information:

Description	Order No.
TR200-A	3477302



TR300 Temperature and Relative Humidity Data Logger

Functions

- Temperature measurement
- Relative Humidity measurement
- Data Logger

Product information

- Instrument for indoor air quality monitoring
- Wall mountable, self-standing or tripod mountable
- Displays Temperature, RH plus Real time date/hour stamp
- Air Temperature or Dew Point (DP) display and Celsius/Fahrenheit are selectable
- Offers both visible LEDs plus audible warnings to monitor IAQ condition
- Small size design
- Memory points selection: 1000, 2000, 4000, 6000, 8000, 12000, 16000

Product highlights

- USB interface
- Extra large digital display

Technical Data

Range	
Relative Humidity	0 to 100%
Temperature	-20 to 70°C (-4 to 158°F)
Accuracy	Relative Humidity ±3% @ 10~90% ±5% @ others Temperature ±0.6°C (±1°F) @ 0-50°C (32°F-122°F) ±1.2°C (±2°F) @ others
Resolution	
Temperature	0.1°C/ 0.1°F
Humidity	0.1%
Power supply	4 x 1.5 V battery, IEC LR6
Dimension	175 x 42 x 16 mm
Weight	approx. 200 g

Scope of supply:

- 1 x TR300
- 1 x user manual
- 4 x 1.5 V battery, IEC LR6
- 1 x USB-cable
- 1 x CD Download Suite

Ordering Information:

Description	Order No.
TR300	3311844



TMULD-300 Ultrasonic leak detector kit

Functions

- Pressurised air leaks (HGV pressurised air, braking and suspension systems), leaks in refrigeration, air-conditioning and heating systems, leaks in steam lines etc.
- Automotive leaks, e.g. in windscreens and door seals

Product information

- Kit consisting of ultrasonic leak detector (ULD-300) and ultrasonic transmitter (UT-300) in robust carrying case
- Leaks indicated optically and acoustically

Information:

Sounds above 20 kHz cannot be heard by the human ear. Even the smallest leaks in pressurised 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.

Technical Data

ULD-300	35 kHz...45 kHz +6 dB
Power supply	9 V battery, IEC 6LR61 (each device)
Display	LED
Frequency range	
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)

Scope of supply:

- 1 x ultrasonic leak detector ULD-300
- 1 x ultrasonic transmitter UT-300
- 1 x headphones
- 1 x extension + parabolic attachment
- 2 x 9 V battery, IEC 6LR61
- 1 x carrying case
- 1 x user manual

Ordering Information:

Description	Order No.
TMULD-300	2731543

Environment



ULD-300 Ultrasonic leak detector

Functions

- Pressurised air leaks (HGV pressurised air, braking and suspension systems), leaks in refrigeration, air-conditioning and heating systems, leaks in steam lines etc.

Product information

- Leaks indicated optically and acoustically

Technical Data

ULD-300:	35 kHz to 45 kHz ± 6 dB
Power supply:	1 x 9 V battery, IEC 6LR61
Display:	LED
Dimensions	ULD-300: 65 x 185 x 25 mm
Weight	ULD-300: approx. 150 g (incl. battery)

Scope of supply:

- 1 x ultrasonic leak detector ULD-300
- 1 x headphones
- 1 x 9 V battery, IEC 6LR61
- 1 x carrying case
- 1 x user manual

Ordering Information:

Description	Order No.
ULD-300	2734431



CM100 Carbon monoxide meter

Functions

- Measuring and displaying the presence of carbon monoxide

Product information

- Adjustable CO warning level
- The CM100's alarm is preset to 25ppm to warn about possible danger
- User can adjust the alarm level by choosing CO gas levels: 25, 30, 35, 45, 50, 70, 100 and 200 ppm
- Dual digital display
- Backlight for viewing in dim areas
- Auto Power Off
- Self-Test feature

Technical Data

Range	0-999 ppm
Accuracy	$\pm 20\%$ at 0 - 100 ppm $\pm 15\%$ at 100 - 500 ppm (at 20 °C $\pm 5\%$, 50 $\pm 20\%$ RH)
Resolution	1 ppm
Battery Life	250 hours without backlight 35 hours with backlight
Power supply	3 x 1.5 V battery, IEC LR03
Dimension	175 x 47 x 28 mm
Weight	approx. 130 g

Scope of supply:

- 1 x CM100 Carbon Monoxide meter
- 3 x 1.5 V battery, IEC LR03
- 1 x carrying case
- 1 x user manual

Ordering Information:

Description	Order No.
CM100	3311826



MANO2-A
Manometer for
Differential Pressure

Functions

- Measuring of pressure

Product information

- Also used for Pneumatic controls
- Five selectable units of measure:
In H₂O, psi, mbar, bar, mm H₂O
- Ideal for measuring HVAC/R pressure levels
- Also used for Pneumatic controls
- Offers Maximum and Minimum value recordings, Data Hold
- Auto power off function, Large backlight LCD
- Includes connection hoses

Product highlights

- USB interface

Technical Data

Range	0 to 138 mbar / 0 to ±2 Psi
Accuracy	± 0.3 % full scale at 25°C (77°F)
Response Time	0.5 second
Sensitivity	
Resolution	per 0.401 in of H ₂ O 0.001 per 0.0145 Psi 0.1 per mbar
Power supply	1 x 9 V battery, IEC 6LR61 included
Dimension	182 x 72 x 30 mm
Weight	approx. 220 g

Scope of supply:

- 1 x MANO2-A
- 1 x carrying case
- 1 x 9 V battery, IEC 6LR61
- 1 x user manual
- 2 x connection hoses Ø 4 (ID) x Ø 6 (OD) x 500 mm

Ordering Information:

Description	Order No.
MANO2-A	3477279



UDM45
Ultrasonic distance meter

Functions

- Length measurement
- Area calculation
- Volume calculation

Product information

- Laser pointer for easy positioning
- Addition of two measured values
- Measurement up to 15 m (50 ft)
- Unit of measurement switchable between metres and feet
- Auto power-off

Technical Data

Display:	LCD
Measurement range:	0.5-15.0 m (1.7-50 ft)
Measurement principle:	ultrasound, 40 kHz
Power supply:	9 V battery, IEC 6F22
Dimensions:	133 x 67 x 45 mm
Weight:	approx. 100 g

Scope of supply:

- 1 x UDM45
- 1 x 9 V battery, IEC 6F22
- 1 x user manual

Ordering Information:

Description	Order No.
UDM45	3311945

Environment



DKTA-620 Dual temperature adapter for type K probe

- Enables switching between two temperatures and measurement of temperature difference
- Adapter with 4 mm banana plug
- Connections for two type K probes

Order No.
2732711



MH101KA Thermocouple adaptor

Thermal adapter for the following probes:
TP110K, TP120K, TP130K

- Cost-effective solution when using two or more probe types
- Probes can be replaced individually
- 5:1 coiled extension cable

Order No.
3026882



TP110KA Immersion probe

- For use with MH101KA thermocouple adaptor

Temperature range: max. 650°C
Accuracy: $\pm 1^\circ\text{C}$ or 0.4%
Response time: approx. 10 s (99% of final temperature value)

Order No.
3026907



TP120KA Surface probe

- Specially shaped to gain precise surface temperature measurements
 - For use with MH101KA thermocouple adaptor
- Temperature range: max. 650°C
Accuracy: $\pm 1^\circ\text{C}$ or 0.4%
Response time: approx. 6 s (99% of final temperature value)

Order No.
3026918



TP130KA Air/Gas probe

- Special design with radiation sheath
- For use with MH101KA thermocouple adaptor

Temperature range: max. 650°C
Accuracy: $\pm 1^\circ\text{C}$ or 0.4%
Response time: approx. 45 s (99% of final temperature value)

Order No.
3026929



TC253B Temperature converter

- $^\circ\text{C}/^\circ\text{F}$ switchable
- Uses type K thermocouple sensor
- Includes TP255A bead probe
- -50 °C to 1000 °C (-58 °F to 1832 °F)
- Converts your multimeter to a thermometer

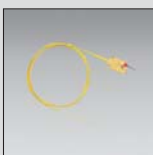
Order No.
3026894



TP254A Immersion probe for higher temperatures

- With handle
- Temperature range: max. 1100°C
Accuracy: $\pm 1^\circ\text{C}$ or 0.4%

Order No.
3026934



TP255A low-cost bead probe

Temperature range: max. 200°C
Accuracy: $\pm 1^\circ\text{C}$ or 0.4%

Order No.
3026941



TPK-59 Flex. wire probe, 4 mm (0.5 m)

Type K temperature probe
Temperature range: -50°C to 204°C
Accuracy: $\pm 1.5^\circ\text{C}$

Order No.
2733660



TA-1A K-type Temperature Adapter with shrouds

- Adaptor with 4 mm plug
- Connector for Type K probes

Order No.
2766054



- Supported Products**
- TELARIS 0100-PLUS
 - TELARIS RCD-TEST
 - TELARIS Loop-TEST
 - TELARIS ISO-PRO

es control 0100 professional
Software for reports and test certificates in accordance with EN 60364-6, EN 50110

- Functions**
- Easy-to-use, upgradable software for logging measurement data in accordance with EN 60364-6, EN 50110
- Software information**
- Clear and simple hierarchy
 - Easily manageable database structure (customer, system, test, distributor and electrical circuit) always visible
 - Transfer of measured values from tester to PC
 - Automatic creation of new devices under test that are not yet in the database. Tests can thus be printed out quickly and easily.
 - Printing of test log in accordance with ZVEH
 - Lists can be exported in text and Excel format
 - Windows® Vista and Windows® 7 compatible*
- Software highlights**
- Access authorisation/user administration for four different user groups
 - Comparison and update of different es control databases (replication)
 - 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 or in the field of facility management

Recommended system requirements

Operating system:	Windows ME; Windows 2000; Windows XP; Vista; 7
Processor:	Pentium IV or similar
RAM:	512 MB or higher
Screen:	VGA monitor or higher resolution monitor; Super VGA recommended (800 x 600 or higher)
Available storage:	400 MB
Drive:	CD-ROM
Interface:	RS232; 9-pole

Scope of supply:

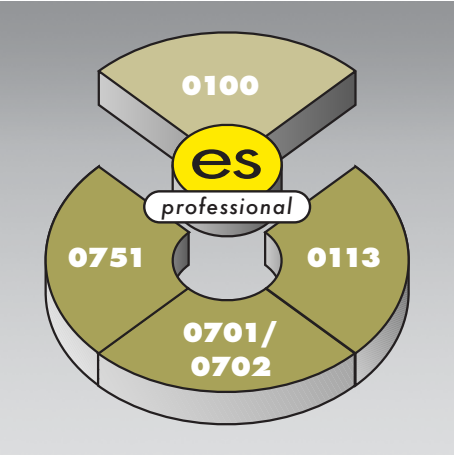
1 x es control 0100 professional on CD-ROM
1 x user manual

Accessories:

 RS-232 to USB Converter Cable
RS-USB

Ordering Information:	
Description	Order No.
ES CONTROL 0100	2390062
ES CONTROL COMPLETE	2390735
RS-USB	2733461

Software



Supported Products
 • MT 204-S

es control 0113 professional

Software for reports and test certificates in accordance with DIN VDE 0701-0702, EN 62353 and EN 60204-1

- Functions**
- Easy-to-use, upgradable software for managing and logging at appliance testing according to DIN VDE 0701-0702, medical-electrical devices according to EN 62353 and machines according to EN 60204

- Software information**
- Clear and simple hierarchy
 - Easily manageable database structure (customer, site, department, DUT, test) always visible
 - Transfer of measured values from tester to PC
 - Automatic creation of new devices under test that are not yet in the database. Tests can thus be printed out quickly and easily.
 - Results of a test series can be printed out in form of a list or individual logs for each DUT
 - Lists can be exported in text and Excel format
 - Windows® Vista and Windows® 7 compatible*

- Software highlights**
- Access authorisation/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 DUT number and test code to be printed as a barcode
 - Ideal software for all providers of repeat testing services or in the field of facility management

Recommended system requirements

Operating system:	Windows ME; Windows 2000; Windows XP; Vista; 7
Processor:	Pentium IV or similar
RAM:	512 MB or higher
Screen:	VGA monitor or higher resolution monitor; Super VGA recommended (800 x 600 or higher)
Available storage:	400 MB
Drive:	CD-ROM
Interface:	RS232; 9-pole

Scope of supply:

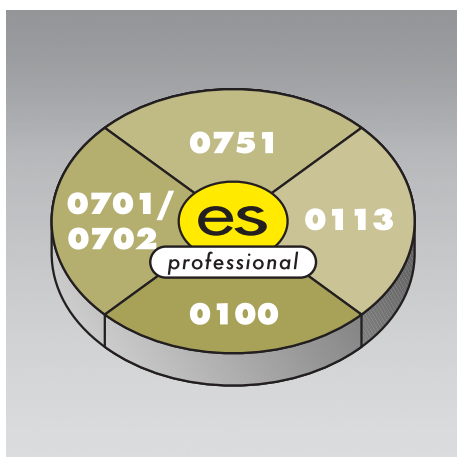
1 x es control 0701/0702/0751/0113 professional on CD-ROM
 1 x user manual



Accessories:

RS-232 to USB Converter Cable
 RS-USB

Ordering Information:	
Description	Order No.
ES CONTROL 0113	2390081
ES CONTROL COMPLETE	2390735
RS-USB	2733461



Supported Products

- TELARIS 0100-PLUS
- TELARIS RCD-TEST
- TELARIS Loop TEST
- TELARIS ISO-PRO
- MT 204-S

es control professional complete package software for reports and test certificates in accordance with EN 60364-6, EN 50110, DIN VDE 0701-0702, EN 62353 and EN 60204-1

Functions

- Easy-to-use, upgradable software for managing and logging according to EN 60364-6, EN 50110, appliance testing according to DIN VDE 0701/0702, medical-electrical devices according to EN 62353 and machines according to EN 60204

Software information

- Clear and simple hierarchy
- Easily manageable database structure (customer, site, department, DUT, test or, in the case of electrical systems, customer, system, test, distributor and electrical circuit) always visible
- Transfer of measured values from tester to PC
- Automatic creation of new devices under test that are not yet in the database. Tests can thus be printed out quickly and easily.
- Results of a test series can be printed out in form of a list or individual logs for each DUT
- Lists can be exported in text and Excel format
- Windows® Vista and Windows® 7 compatible*

Software highlights

- Comprises es control 0100 professional and es control 0113 professional
- Access authorisation/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 DUT 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 or in the field of facility management

Recommended system requirements

Operating system:	Windows ME; Windows 2000; Windows XP; Vista; 7
Processor:	Pentium IV or similar
RAM:	512 MB or higher
Screen:	VGA monitor or higher resolution monitor; Super VGA recommended (800 x 600 or higher)
Available storage:	400 MB
Drive:	CD-ROM
Interface:	RS232; 9-pole

Scope of supply:

1 x es control professional on CD-ROM
1 x user manual



Accessories:

RS-232 to USB Converter Cable
RS-USB

Ordering Information:

Description	Order No.
ES CONTROL COMPLETE	2390735
RS-USB	2733461

Accessories



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

Order No. 2732643



H-PMA
Holster for PM-Series
 Order No. 3068175



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

Order No. 2733511



VC3A
Carrying Case
 Material: Nylon
 External dimensions:
 140 x 80 x 20 mm

Order No. 3099130



VC20A
Carrying Case
 Material: Imitation leather,
 belt loop
 External dimensions:
 200 x 80 x 45 mm

Order No. 3099127



VC30A
Carrying Case
 Material: Imitation leather,
 belt loop
 External dimensions:
 200 x 80 x 45 mm

Order No. 3068280



VC221B
Carrying Case
 Material: Imitation leather,
 belt loop
 External dimensions:
 220 x 115 x 60 mm

Order No. 3068271

Fuses

Description	Specifications	Order No.
FP100	(2x 10 A/1000 V)	1990707
FP125	(4x 0.1 A/250 V)	1561550
FP150	(4x 0.2 A/250 V)	1561561
FP160	(2x 10 A/600 V)	1990718
FP200	(2x 2 A/1000 V)	2095180
FP225	(4x 0.5 A/250 V)	1561577
FP300	(4x 0.315 A/1000 V)	1990688
FP375	(4x 0.25 A/500 V)	1561610
FP400	(4x 10 A/600 V)	1561631
FP425	(2x 20 A/600 V)	1561646
FP500	(4x 0.5 A/1000 V)	1990695
FP520	(2x 0.5 A/500 V)	3157013
FP600	(2x 15 A/600 V)	1565777
FP700	(2x 2 A/1500 V) for HD160C	2637713
FP900	(2x 200 mA/600 V)	2278800



DL243D Test lead set

Accessory information
• Test lead set

Technical Data

Measurement category: CAT III/1000 V
Small crocodile clips: CAT II/300 V
Pollution degree: 2
Safety cert.: EN 61010, IEC 61010

Scope of supply:

- 1 x red test lead, approx. 1.2 m
- 1 x black test lead, approx. 1.2 m
- 1 x small crocodile clip, red
- 1 x small crocodile clip, black
- 1 x test probe, red
- 1 x test probe, black
- 1 x screw adapter, red
- 1 x screw adapter, black
- 1 x carrying case

Order No. 3026853



DL248D „deluxe“ test lead set

Accessory information
• Test lead set (silicone leads)

Technical Data

Measurement category: CAT III/1000 V
Small crocodile clips: CAT II/300 V
Pollution degree: 2
Safety cert.: EN 61010, IEC 61010

Scope of supply:

- 1 x red test lead, approx. 1.2 m
- 1 x black test lead, approx. 1.2 m
- 1 x small crocodile clip, red
- 1 x small crocodile clip, black
- 1 x test probe, red
- 1 x test probe, black
- 1 x extra long test probe, red
- 1 x clamp test probe, red
- 1 x clamp test probe, black
- 1 x screw adapter, red
- 1 x screw adapter, black
- 1 x carrying case

Order No. 3026866

Accessories



EU-200 Test lead set

Accessory information

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

Technical Data

Measurement category: CAT III/1000 V
 Pollution degree: 2
 Safety cert.: EN 61010, IEC 61010

Scope of supply:

- 2 x test leads
- 2 x test probes
- 2 x crocodile clips

Order No. 2745046



MTL-90B Test lead set with crocodile clips

Accessory information

- Test lead set with PVC insulation

Technical Data

Current: max. 10 A
 Measurement category: CAT III/1000 V
 Pollution degree: 2
 Safety cert.: EN 61010, IEC 61010

Scope of supply:

- 2 x test leads, approx. 1 m
- 2 x crocodile clips

Order No. 2733170



MTL501 Test lead set

Accessory information
• Test lead set with silicone leads

Technical Data

Measurement category: CAT III/1000 V, CAT IV/600 V
Pollution degree: 2
Safety cert.: EN 61010, IEC 61010

Scope of supply:

2 x test leads, approx. 1 m
2 x crocodile clips
2 x test probes with flat tip
2 x test probe
2 x test probes with hooks

Order No. 2733143



MTL500 Professional Electrical Test Leads

Accessory information
• Double insulated for maximum protection

Technical Data

Measurement category: CAT III 1000V, CAT IV 600V, 20A
Pollution degree: 2
Safety cert.: EN 61010, IEC 61010

Scope of supply:

MTL-100 Double insulated Silicon Test Leads
MTL-101 Sharp Test Probes
MTL-102 Fully Insulated Alligator Clips

Order No. 2733128



TL35B test lead set with safety crocodile clips

Accessory information
• Test lead set with 4 mm safety technology
• PVC-insulated leads
• Threaded test probes
• Safety crocodile clips with threaded connection

Technical Data

Measurement category: CAT IV/600 V, CAT III/1000 V
Pollution degree: 2
Safety cert.: EN 61010, IEC 61010

Scope of supply:

2 x test leads, approx. 1 m
2 x crocodile clips

Order No. 3068232

Accessories



Scope of supply:

2 x test leads, approx. 1 m
2 x crocodile clips

TL36A Test lead set with crocodile clips

Accessory information

- Test lead set with 4 mm safety technology
- PVC-insulated leads
- Threaded test probes
- Crocodile clips with threaded connection

Technical Data

Measurement category: CAT IV/600 V, CAT III/1000 V
Pollution degree: 2
Safety cert.: EN 61010, IEC 61010

Order No. 3034444



Scope of supply:

2 x silicone-test leads, approx. 1 m
2 x crocodile clips

TL244B Test lead set with crocodile clips (silicone leads)

Accessory information

- Test lead set with 4 mm safety technology
- PVC-insulated leads
- Threaded test probes
- Crocodile clips with threaded connection

Technical Data

Measurement category: CAT IV/600 V, CAT III/1000 V
Pollution degree: 2
Safety cert.: EN 61010, IEC 61010

Order No. 3068203



TL245A Test lead set

Accessory information

- Test lead set with 4 mm safety technology
- PVC-insulated leads

Technical Data

Measurement category:	CAT III/1000 V
Pollution degree:	2
Safety cert.:	EN 61010, IEC 61010

Scope of supply:

2 x test leads, approx. 90 cm

Order No. 3068215



TL1500 Test lead set with crocodile clips

Accessory information

- Test lead set with 4 mm safety technology
- PVC-insulated leads
- Threaded test probes
- Safety crocodile clips with threaded connection

Technical Data

Measurement category:	CAT IV/1000 V
Pollution degree:	2
Safety cert.:	EN 61010, IEC 61010

Scope of supply:

2 x test leads, approx. 1 m
2 x crocodile clips

Order No. 2696277



HV231-10A High voltage probe

Functions

- High-voltage probe for AC and DC

Product information

- Voltage measurement up to 40 kV
- Usable with standard multimeter with 10 M Ω input impedance
- For measurements on energy limited circuits only

Technical Data

Input resistance:	1000 M Ω
Conversion factor:	1000:1
Max. voltage:	40 kV DC or AC, peak 28 kV AC RMS
Basic accuracy	DC V (1 kV to 20 kV) $\pm 1\%$ DC V (20 kV to 40 kV) $\pm 2\%$ AC V (1 kV to 20 kV) (50/60 Hz) $\pm 5\%$
Dimensions:	340 x 30 mm
Weight:	218 g

Scope of supply:

1 x HV231-10A
1 x user manual

Ordering Information:

Description	Order No.
HV231-10A	3026875

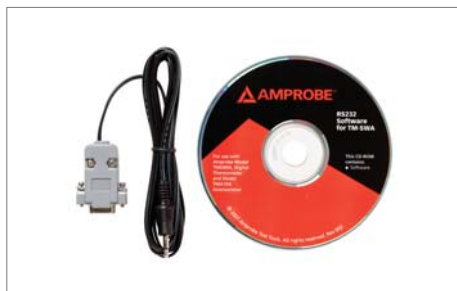
Accessories



38SW-A Software for Multimeter 38XR-A

- Windows software for transferring and displaying data to/on a PC
- Extensive export function for processing measurement data, e.g. with MS Excel
- RS-232 data cable included

Order No. 2727813



TM-SWA Software for TMA10A and TMD90A

- Windows software for transferring and displaying data to/on a PC
- RS-232 data cable included

Order No. 3027085



RS-232 KIT1 Software for Multimeter AM-150

- Windows software for transferring and displaying data to/on a PC
- RS-232 data cable included

Order No. 2733438



RS-232 KIT2 Software for current clamp ACD-16 TRMS-PRO

- Windows software for transferring and displaying data to/on a PC
- RS-232 data cable included

Order No. 2733445



RS-USB USB to RS-232 Adapter

- Converts the USB port of a personal computer to the RS-232
- Supports Windows 95(OSR2X), 98, 2000, ME, XP Mac 8.6 and higher
- Works with Amprobe instruments with download capabilities
- Works with many other products with USB ports, including cameras, palm pilot, card readers, mouse, security systems, etc.
- Will free up the serial port for other uses CE and FCC approved

Order No. 2733461



AMPRB-ET4 Earth Testing Accessory Kit

- Supported product: TELARIS Earth
- Scope of supply:
- 1 x Carrying case
 - 4 x Spikes (235 x Ø 10 mm),
 - 1 x Test lead red (25 m)
 - 1 x Test lead blue (25 m),
 - 1 x Test lead green (5 m)
 - 1 x Test lead black (5 m)
 - 4 x Cable reel
 - 4 x Crocodile clips

Order No. 3352363

Amprobe® Test Tools offers a wide range of devices for testing and measuring electrical properties in various field applications. Primary products include Clamp Meters, Multimeters, Wire Tracers, Megohmmeters, Environmental and Voltage & Continuity testers.

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