



AM-500-EUR Series Digital Multimeters

Feature-rich, reliable and rugged solutions

The Beha-Amprobe AM-500-EUR Digital Multimeter Series is a full line of digital multimeters that offer functions for every application. These tough meters are designed to be a reliable, feature-rich and rugged solution for taking critical measurements in residential, HVAC, electrical and industrial settings at breakthrough affordability.



← . . . Backlit dual display for readability in low-light conditions

← . . . Measures AC/DC voltage up to 1000V, ac/dc current

← . . . Dual thermocouples for differential temperature measurements



AM-555-EUR
Advanced Industrial Multimeter with True-RMS



AM-500-EUR series selection guide

			AM-510-EUR	AM-520-EUR	AM-535-EUR	AM-540-EUR	AM-555-EUR
Functions	Application:	Feature:	CAT III 600V	CAT III 600V	CAT III 600V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V
	Measure voltage in noisy environments	True-rms			•		•
	Electrical panels, AC outlets	AC Voltage (V)	600	600	600	1000	1000
	DC systems, auto/marine batteries	DC Voltage (V)	600	600	600	1000	1000
	AC Current - electrical panels, appliances	AC Current (A)	10	10	20	10	20
	DC Current - electronics, DC motors	DC Current (A)	10	10	20	10	20
	Specified resistance and continuity	Resistance (MOhms)	40	40	40	60	60
	Flame sensors	Microamps	•	•	•	•	•
	Diodes in AC to DC converters	Diode test	•	•	•	•	•
	Fuses, lightbulbs, wire connections	Continuity	•	•	•	•	•
	Household batteries	Battery test	•				
	Motor startup or run capacitors	Capacitance	•	•	•	•	•
	Frequency verification	Frequency	•	•	•	•	•
Non-contact voltage detection	VolTect Plus™	•	•	•	•	•	
Electrical load-time on vs. time off	Duty cycle	•			•	•	
Temp of air vents, fuses, transformers	Temperature inputs		1	1	2	2	
Features	Automatically selects measurement range	Autoranging	•	•	•	•	•
	Manually select measurement range	Manual ranging	•	•	•	•	•
	Voltage on variable frequency drives	Low pass filter				•	•
	Detect stray voltages	Low Z					•
	Dimly lit areas	Built-in flashlight	•	•	•	•	•
Display	Meter resolution	LCD Counts	4,000	4,000	4,000	6,000	6,000
	Dimly lit areas	Backlight	•	•	•	•	•
	Monitoring fast changing signals	Bar graph		•	•	•	•
	Two relative measurements on one screen	Dual display				•	•
Events	Data memory	Data hold	•	•	•	•	•
	Difference between two measurements	Relative reading	•	•	•	•	•
	Max/min peak measurement	Max/min hold		•	•	•	•
	Specialized signal measurements	Peak hold (crest)				•	•



Specifications

	AM-510-EUR	AM-520-EUR	AM-535-EUR	AM-540-EUR	AM-555-EUR
Measurement category	CAT III / 600V	CAT III / 600V	CAT III / 600V	CAT IV / 600V, CAT III / 1000V	CAT IV / 600V, CAT III / 1000V
AC voltage	1 mV...600V	1 mV...600V	1 mV...600V	1 mV...1000 V	1 mV...1000 V
Basic accuracy *	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)	± (1.0 % rgd. + 3 digits)
Frequency range	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...1 kHz	45 Hz...1 kHz
DC voltage	1 mV...600V	0.1 mV...600V	0.1 mV...600V	0.1 mV...1000 V	0.1 mV...1000 V
Basic accuracy *	± (0.8 % rgd. + 1 digits)	± (0.8 % rgd. + 1 digits)	± (0.8 % rgd. + 1 digits)	± (0.5 % rgd. + 2 digits)	± (0.5 % rgd. + 2 digits)
Input resistance	10 MΩ	10 MΩ	10 MΩ	10 MΩ	10 MΩ
Current AC	0.1 μA...10A	0.1 μA...10A	0.1 μA...20A**	0.1 μA...10A	0.1 μA...20A**
Basic accuracy *	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)
Frequency range	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...400 Hz	45 Hz...1 kHz	45 Hz...1 kHz
Current DC	0.1 μA...10A	0.1 μA...10A	0.1 μA...20A**	0.1 μA...10A	0.1 μA...20A**
Basic accuracy *	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)	± (1.0 % rgd + 2 digits)
Resistance	0.1 Ω...40 MΩ	0.1 Ω...40 MΩ	0.1 Ω...40 MΩ	0.1 Ω...60 MΩ	0.1 Ω...60 MΩ
Basic accuracy *	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)	± (1.2 % rgd. + 2 digits)
Capacitance	10 pF...100.0 μF	10 pF...4000 μF	10 pF...4000 μF	60.00 nF...60 mF	60.00 nF...60 mF
Basic accuracy *	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)	± (3 % rgd. + 5 digits)
Frequency	1,00 Hz...10 MHz	1,00 Hz...10 MHz	1,00 Hz...10 MHz	1,00 Hz...60 MHz	1,00 Hz...60 MHz
Basic accuracy *	± (0.1 % rgd. + 4 digits)	± (0.1 % rgd. + 4 digits)	± (0.1 % rgd. + 4 digits)	± (0.1 % rgd. + 3 digits)	± (0.1 % rgd. + 3 digits)
Temperature	-	-40...1000 °C	-40...1000 °C	-40...1000 °C	-40...1000 °C
Basic accuracy *	-	± (1.0 % rgd. + 8 digits)	± (1.0 % rgd. + 8 digits)	± (1.0 % rgd. + 8 digits)	± (1.0 % rgd. + 8 digits)
Continuity	R < 10 Ω	R < 10 Ω	R < 10 Ω	R < 10 Ω	R < 10 Ω
General Specifications					
Display	3999 Digits	3999 Digits	3999 Digits	5999 Digits	5999 Digits
Pollution degree	2				
Safety	EN 61010, IEC 61010				
Power supply	9 V (6F22)				
Dimensions	182 x 90 x 45 mm				
Weight	approx. 354 g (incl. battery)				
Scope of supply	2 x test leads, 1 x 9 V battery, 1 x user manual	2 x test leads, 1 x temperature probe, 1 x strap, 1 x 9 V battery, 1 x user manual	2 x test leads, 1 x temperature probe, 1 x strap, 1 x 9 V battery, 1 x user manual	2 x test leads, 2 x temperature probe, 1 x temperature adaptor 1 x strap, 1 x 9 V battery, 1 x user manual	2 x test leads, 2 x temperature probe, 1 x temperature adaptor 1 x strap, 1 x 9 V battery, 1 x user manual

*Basic accuracy refers to the best accuracy in the respective function

**Max duration of measurement:

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

Order information

Order number	Description
AM-510-EUR	Digital Multimeter
AM-520-EUR	Digital Multimeter
AM-535-EUR	Digital Multimeter TRMS
AM-540-EUR	Digital Multimeter
AM-555-EUR	Digital Multimeter TRMS

All Beha-Amprobe tools, including the AM-500-EUR Series, are rigorously tested for safety, accuracy, reliability, and ruggedness. In addition, Beha-Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Beha-Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.

