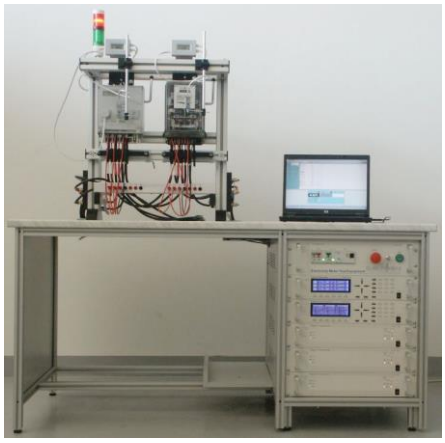
Small Electricity Meter Test Equipment **ELMA 8x01**

Automated compact system for precision laboratory testing

Small test equipment ELMA is equipped with power amplifier for 1, 2 or 3 test positions. It is a „table version“ of test equipment for measurement, adjustment or calibration of small number of the meters. Similarly as bigger equipments it can be equipped with current common mode rejectors or voltage common mode rejectors. This equipment is supplied from single-phase mains.



Small test equipment ELMA 8301 with two positions

Highlights

- Accuracy class of the equipment (reference meter) can be up to 0.01%. The reference meter measures all main and influencing quantities inclusive harmonic analysis and distortion of the test signals.
- The available power and the maximum current of 240 A of extremely pure synthesized 4-quadrant test signal covers the needs on both precision and high capacity testing laboratories. The test signal can be created with a user defined harmonic content.
- The intelligent high resolution Local Evaluation Units use reflective optical sensors, scanning the marks on meter's disk and passive sensors, scanning the LED test output of electronic meters. The sensors are insensitive to external light condition and possess auto-calibration capability eliminating manual adjustment. The optional optical communication channel enables simultaneous data exchange with electronic meters. The built-in remotely controlled dividers enable evaluation of high constant meters with light impulses up to 1 kHz.
- Suspension frame for 1, 2 or 3 positions is equipped with quick-acting connector system.
- The optional precision electronically compensated transformers enable simultaneous test of electricity meters with interconnected current and voltage circuits.
- The supplied Control Software for Microsoft Windows enables multilingual operation with user definable vocabularies, user friendly configuration of testing procedures, database operations and Microsoft Office compatible user defined form of output documents to any system output device.
- Optional local net and database ensures automated data interchange, central evaluation and archivation in laboratories with multiple test equipments.

Electricity meter test equipment ELMA 8301 with single position

Technical data

Voltage	
RMS Voltage Range (Phase - Neutral)	1 x 30 V .. 300 V (500 V optional) **ELMA 8101**; 3 x 30 V .. 300 V (500 V optional) **ELMA 8301**
Resolution	< 0,01 %
Stability	< 0,005 % (integration time 150 sec)
Distortion Factor	< 0,3 %
Setting Accuracy	< 0,05 % **ELMA 8x01A**; < 0,02 % **ELMA 8x01E**; < 0,01 % **ELMA 8x01S**
Current	
RMS Current Range	1 x 1 mA .. 120 A (240 A optional) **ELMA 8101**; 3 x 1 mA .. 120 A (240 A optional) **ELMA 8301**
Resolution	< 0,01 %
Stability	< 0,005 % (integration time 150 sec)
Distortion Factor	< 0,3 %
Setting Accuracy	< 0,05 % **ELMA 8x01A**; < 0,02 % **ELMA 8x01E**; < 0,01 % **ELMA 8x01S**
Phase Angle	
Range	0 ° .. 360 °
Resolution	< 0,01°
Setting Accuracy	< 0,03 ° **ELMA 8x01A**; < 0,01 ° **ELMA 8x01E**; < 0,005 ° **ELMA 8x01S**
Frequency	
Fundamental Frequency Range	40 Hz ... 70 Hz
Resolution	< 0,002 Hz
Setting Accuracy	< 0,002 Hz
Output Power	
Current *	1 x 100 VA **ELMA 8101**; 3 x 100 VA **ELMA 8301**
Voltage	1 x 100 VA **ELMA 8101**; 3 x 100 VA **ELMA 8301**

* Specified for full ranges current on output terminal of the source