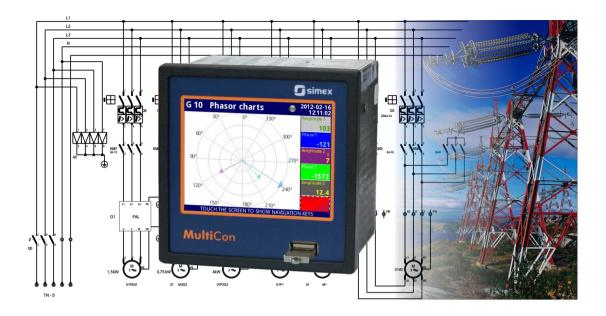
## **Energy Monitoring and Control**





Power energy measurement is a key issue for automation process. For some of them, it is extremely important to estimate the consumption of electricity. With counters and grid analysers available in our offer and using a series of mathematical functions implemented, MultiCon is a perfect diagnostic tool. It calculates the balance and current energy consumption easily as well as provides information about common parameters, starting from voltage, intensity, the sum of intensities of three phases, energy and ending with the phase and individual harmonic shifts.

According to application type and requirements you can choose between two devices, both equipped with RS-485 module for easy communication with MultiCon, energy counter or network analyser.

### **SNA-L70**: Multifunction three-phase meter

- 4 DIN modules compact version
- Fully bi-directional four quadrants measurements for all energies and powers
- Main electrical parameters measured and displayed for a cost-effective consumption analysis
- Version for 1 or 5A CT, for direct connection up to 6A or 80A or for Rogowski coils
- 3 current measurement scales for Rogowski model
- Possibility to connect by PT
- MODBUS RTU/ASCII communication by RS-485 port



# SEC-L70 : three phase energy counter with built-in communication

- Version for 1 or 5A CT, for direct connection up to 6A or 80A
- Fully bi-directional four quadrants measurements for all energies and powers
- For 3 / 4 wire networks with balanced or unbalanced load
- Class B according to EN 50470-3
- S0 output for energy pulse emission
- RS-485 Modbus RTU/ASCII communication



## **Energy Monitoring and Control**



#### SNA-L70

**SNA-L70** is an innovative instrument for measurement of the electrical parameters. It is particularly suitable for consumption analysis and control, with an excellent quality/price ratio.

For the version with Rogowski coils (RGW model), connections are very quick and easy, very useful for retrofitting applications on existing switchboards or for energy audit.

**SNA-L70** is the ideal instrument to establish the measurement points on the plant.

The instrument can communicate through the RS-485 serial port by MODBUS RTU/ASCII protocol.





#### SEC-L70

4 DIN modules energy counter **SEC-L70** for the energy measurement in industrial and civilian application, with the RS-485 Modbus RTU/ASCII built-in communication.

Besides the energy, the counter can measure the main electrical parameters and makes them available on the built-in COM port. The LCD display shows the energies and the instantaneous powers. The COM port allows to manage the connected meter by a remote station. Data is transmitted on a RS-485 line.

The counter **SEC-L70** is built according to EN 50470-1 standard. The accuracy of the active energy fulfills class B requirements according to EN 50470-3. The accuracy of the reactive energy is compliant to IEC/EN 62053-23 class 2.

Wide backlighted LCD display with clear graphic symbols comprehensible at a glance. Metrological LED on front panel and sealable terminal covers. The analysis of the MTBF values, the accurate selection of components and the reduction of the internal working temperatures together with strict production and control standards guarantee a product with an excellent quality and a long lasting reliability.

	Energy counters SEC-L70-111 model 6A SEC-L70-211 model 80A	Network analyzers SNA-L70-111 model 6A SNA-L70-211 model 80A SNA-L70-511 model RGW
Display	backlighted LCD	backlighted LCD
Input	voltage range: 3 x 230/400 V 3 x 240/415 V current: - 1/5A CT model: 6A - 80A model: 80A tariff input: active optoisolated, 80 276 V AC/DC	voltage range: - self-powered model: 3x180/310 3x285/495 VAC - auxiliary power supply (AUX) model: 3x10/17 3x285/495 VAC  current: - 1/5A CT model: 6A - 80A model: 80A - RGW model: 3 selectable scales, 500/4000/20000A (Rogowski coils)  digital: active optoisolated, voltage range for DMD synchronisation: 80 276 VAC
Output	passive optoisolated, maximum values: 27 VDC - 27 mA, pulse length: 50 ±2ms	<u>digital:</u> passive optoisolated; self-powered model: 250 VAC/DC - 100 mA; auxiliary power supply (AUX) model: 27 VDC - 27 mA
Accuracy	active energy: class B according to EN 50470-3 reactive energy: class 2 according to IEC/EN 62053-23	voltage: ±0,2% reading in 10% FSFS range; current: ±0,4% reading in 5% FSFS range; power: ±0,5% reading ±0,1% FS (PF=1); frequency: ±0,1% reading ±1 digit in 4565 Hz range; active energy: Class 1 according to IEC/EN 62053-21; reactive energy: Class 2 according to IEC/EN 62053-23
Communication port	RS-485, Modbus RTU/ASCII	RS-485 optoisolated, Modbus RTU/ASCII
Protection degree	IP 51 (frontal part), IP 20 (terminals)	IP 51 (frontal part), IP 20 (terminals)
Operating temp.	-25°C ÷ +55°C	-25°C ÷ +55°C
Size & weight	72 x 90 x 64 mm, DIN TS-35 mounting	72 x 90 x 65 mm, DIN TS-35 mounting, max 436 g