



Skalar.pro

Meter data communication with the most modern technology: secure, flexible and economical

Skalar.pro has been designed for decentralized reading as well as time-triggered or event-triggered transmission of data provided by energy, heat, gas, and water meters. The device offers the tried and tested functions of the Skalar device family based on up-to-date technology; in addition, these functions are completed with security features and the device fulfils all demands placed on IP-based communication. Apart from that you also benefit from increased performance, high memory capacity and easy operation.

Tried and tested technology, improved performance

Skalar.pro guarantees decentralized reading as well as time-triggered or event-triggered transmission of data provided by energy, heat, gas, and water meters. The device thereby supports the Least Cost Metering (LCM) standard. All data is automatically transmitted to the remote server in Push operation. Apart from that you can use Pull operation to communicate directly with meters connected at any time; you may also take advantage of wired data transmission via available network infrastructures and use VPN. Already today, Skalar.pro considers all upcoming changes to the communication infrastructure caused by the changeover to All-IP. Your benefit: optimum investment protection due to a future-proof platform.

Skalar.pro devices can be integrated effortlessly into existing infrastructures and thus already available technologies can be used easily as they are, for example, configured via web browsers. In addition, Skalar.pro provides manifold interface options to connect meters and uses the well-known decentralized intelligence of Skalar devices for all meter readings. Up-to-date encryption procedures and electronic signatures to proof authenticity protect captured data during transmission.

Increased memory capacity, improved computing power and various transmission bandwidths ensure optimum performance and efficient data transmission.

In detail

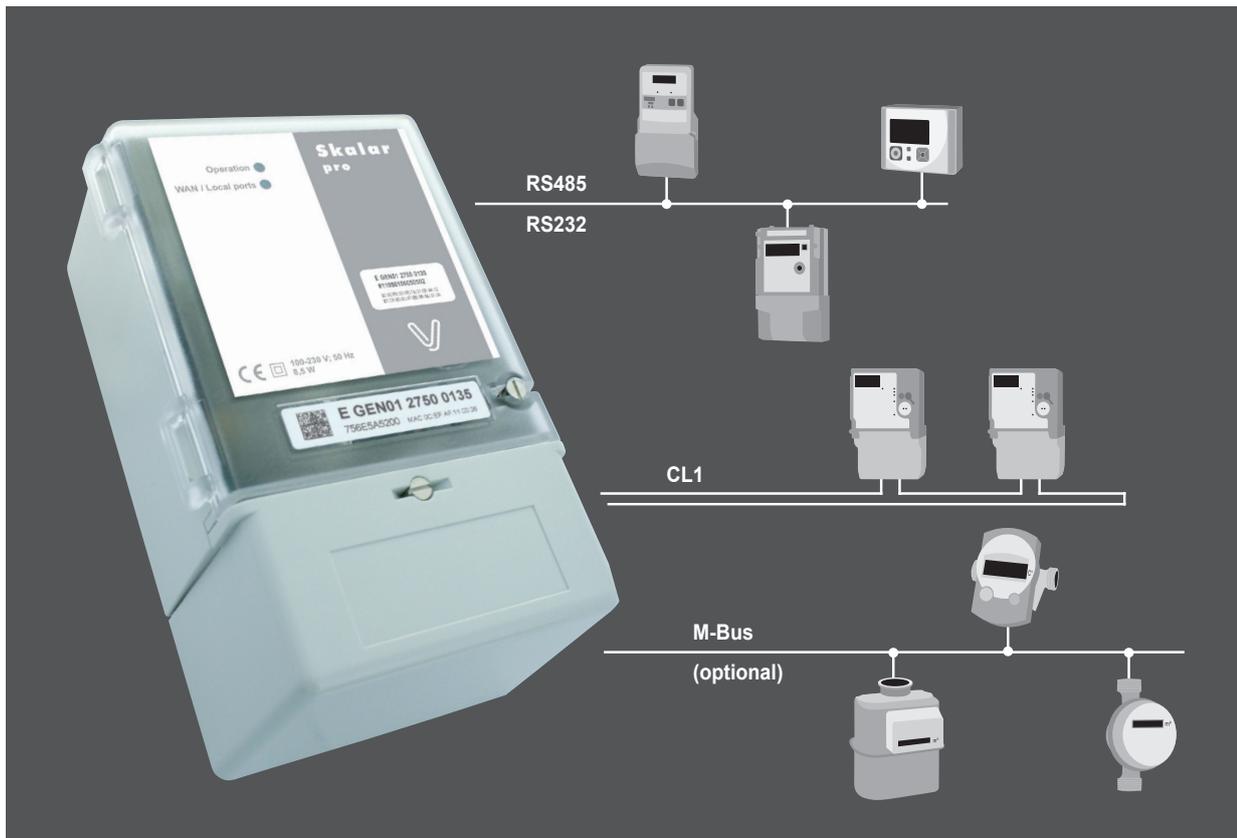
- Device platform for IP-based reading and transmission of meter data
- Secure communication thanks to VPN technology
- Least Cost Metering (LCM) support for decentralized reading of energy, heat, gas or water meters
- Flexible application options thanks to diverse interfaces
- Future-proof design and investment protection

Up-to-date data transmission

The market of automated energy data collection provides a plethora of meters and data loggers with a large diversity of interfaces, data formats and functions. Skalar.pro communicates with connected devices by means of a large number of standardized communication protocols and converts reading data into uniform formats; depending on the features, Skalar.pro transmits data by means of the internet protocol TCP/IP via mobile networks or Ethernet® to remote servers from where data can be further processed automatically in AMR systems.

Meters may be connected to the integrated serial interfaces in accordance with CL1, RS232, RS485, or to the optional M-Bus master (wired or wireless). A power supply output (DCOUT) can be activated and configured to supply external interface circuits. A signalling input perfects the features of the basic equipment; the input is designed for connecting a passive contact to trigger activities or messages.

The basic version of the device is already prepared for optionally integrable hardware extensions providing additional interfaces such as, for example, extensions to control plants in accordance with German law (EEG).



Flexible connection of various field technologies: Skalar.pro supports all mediums and their particular measuring instruments.

Quick and comfortable configuration

Skalar.pro does not need any specific software to configure and check its device functions. A common web browser is the only thing you need. Just connect a standard computer, laptop or smartphone to the service interface of Skalar.pro to access the configuration interface. A clear visualization of important functions and device features helps users to find required information or settings quickly. Apart from that users are supported by guided processes when, for example, commissioning Skalar.pro. During commissioning, all required details are requested step-by-step and thus all relevant settings are made. Automatic firmware updates further facilitate daily business; new versions are loaded from an update server as soon as they are available.

Description	Manufacturer	Address/Identification no./Device list	Interface	Active
ELSTER AS1440	-	20	RS485 (H) #1	Yes
ELSTER EK260	-		RS232 #1	Yes
ISKRA MT851	-	25	RS485 (H) #1	Yes
SVM F2	-	09826866	M-Bus #1	Yes

Guided processes assist users with configuration

Secure communication thanks to VPN technology

Cryptographic functions of Skalar.pro are state of the art; they have been based on asymmetric cryptographic systems in accordance with RSA. Communication via VPN connections can be activated in the configuration; the communication is mutually based on certificates and therefore meets the highest demands on IT security.

When using VPN, particular certificates are available from the manufacturer; these certificates serve to control and verify trust relationships between communication partners when establishing a connection.

At a glance

- Skalar.pro has been equipped with a real time clock and synchronizes device clocks of all connected devices in regular intervals by means of requesting central time servers and forwarding date and time information.
- Skalar.pro features self-organized software updates via remote update server. Software integrity is guaranteed by digital signatures and verified by the device.
- Skalar.pro provides an Ethernet® interface; the interface is used to call the integrated web server for service purposes and to configure the device with a common web browser. The configuration interface may also be used via remote connection.
- Skalar.pro offers access protection based on roles. Sensitive configuration data is transmitted to the device in encrypted form.
- Skalar.pro records important events in a logbook that is available locally or via remote connection; such events may be changes to statuses, login procedures at the service interface, setting the clock, errors during data processing, etc.
- Skalar.pro comes with a power supply connection for 100/230 V AC 50Hz.
- Skalar.pro is integrated into the tried and tested moulded insulation case of the Skalar family that has been designed for cross-bar mounting on the terminal cover of an energy meter or for wall mounting.

The following options are at your disposal:

- Skalar.pro with integrated mobile services module; this version uses the IP-based network modes GPRS, EDGE, UMTS, HSPA and LTE (2.5G, 2.75G, 3G, 3.5G and 4G);
- Skalar.pro with Ethernet interface based on up-to-date IP technology;
- Skalar.pro Mobile Services/M-Bus;
- Skalar.pro ETHN/M-Bus;
- All versions of Skalar.pro are also available with integrated PRM44 to record energy pulses.