

Metering Glossary

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Modern metering technology has changed the way energy measurement is being processed - and it is going to change an entire business model within the years to come. So will do the terms and expressions of the industry. Our metering glossary keeps you up to date.

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Initial **S**

S (VA)

Apparent power

S0

The S0 interface (transistor pulse output r53) serves to transmit fixed valency pulses to external devices. The pulse length and the pulse constant are parameterisable.

SAP

Service Access Point. The SAP is a device address defined in the link layer (see HDLC). Only a correctly addressed device reacts to the communication data received.

SCADA

Supervisory Control And Data Acquisition. A large-scale, distributed measurement (and control) system. SCADA systems are e.g. used to monitor or to control electric power generation, transmission and distribution.

SCTM

Serial Coded TeleMetering, this is a former FAG telegram protocol.

Server-ID

The Server-ID is the unique address of each SyM²-module. The Server-ID corresponds to the MAC-address of a SyM²-module on the local bus.

The Server-ID is determined in various ways for components without local bus connection (e.g. MDE or central station). It is, however, always unique.

Service Provider

Provider, company, institution, which offers users access to the internet or to an online service.

Service tool

Landis+Gyr MAP110 und MAP120 software

Settlement Price

The official closing price of the day for each future contract, established by the exchange as a benchmark for settling margin accounts and determining invoice price for delivery on that day.

S-FSK

Spread frequency shift keying. A modulation scheme which is a combination of narrow band FSK and spread-spectrum technology. The signal is transmitted on a bandwidth considerably larger than the frequency content of the original information, this increases the signal-to-noise ratio.

SIM card

Subscriber Identity Module. A chip card that is inserted in a mobile device and is used for the identification of the user in the network.

Smart Metering Systems

These systems collect and deliver the information needed to optimise energy consumption.

Smart meters

Devices with a range of extra functions. A smart meter will be able to record not only how much energy was used, but also when it was used. This enables different electricity rates for different times of the day to encourage customers to regulate their own usage of electricity during peak times. There are basically two types of smart meters: "Time Of Use" meters and interval meters.

SML

SML (Smart Message Language) is a communication protocol for applications in the area of data acquisition and parametrisation of devices. User data are packed into SML-messages, which are again combined to SML files for transmission. SML-files are independent of the transmission method. They can be sent via e-mail, modem-connection or IP-Telemetry.

The following SML-files can occur: SML-request file, SML-response file or SML-combined file.

An SML-message is either a request message or a response message. Depending on the task, SML defines different message types.

The SML-Transport-Protocol (SML-T) is used for the transmission of SML messages via unsecured connections. This protocol is used on all SyM² interfaces.

SOI

Start of Interval. This bit indicates the start of the capture period.

Solid state meter

Digital/electronic metering device.

Solid state recorder

Device that saves data pulses in solid state memory for later analysis.

SPI

Serial Process Interface.

SPI

Service Provider Interface

Starting bit rate

It is specified by IEC permit change to a higher bit rate (the maximum bit rate or communication speed) after an opening. 300 bps

is normally selected for starting and 9600 bps for the maximum rate via the optical interface. As soon as communication takes place e.g. via a modem connection, however, the bit rate can no longer be changed. In this case therefore the starting bit rate is selected to be the same as the communication speed.

Start-Stop bit

Characters used with asynchronous interfaces (e.g. RS232) to find the beginning and end of the transmission frame. One start and one stop bit and 8 data bits are normally used per transmission frame.

STOM

Serial Transmission of Original Meter Values. Acquisition of meter values with subset from IEC 870-5-102 and transmission via IEC 870 or SCTM to the central station.

Substation

A facility for switching electrical elements, transforming voltage, regulating power, or metering.

Supervisory control

A form of remote control comprising an arrangement for the selective control of remotely located facilities by an electrical means over one or more communications media.

Supply-Side

Activities conducted on the utility's side of the customer meter.

