



ACE SL7000

Industrial & Substation Electricity Meter Range

Itron's ACE SL700 meter range offers a solution for all industrial and substation applications. Equipped with flexible communication technology combined with elements of traditional C&I metering, the ACE SL7000 meter range offers the versatility and flexibility required to meet today's rapidly changing markets.

Flexible

Designed for direct or transformer connection, ACE SL7000 meters offer a scalable architecture that allows them to be installed on existing and new electricity distribution networks.

Versatile

The ACE SL7000 meter range can be installed in multiple markets and for several applications. Its auto-ranging power supply and extremely wide measuring range ensures that a single meter type can be used across a variety of applications – from large commercial installations to substation metering.

- » Commercial and Industrial Applications: Summation features and multi-energy inputs reduce the need for additional data concentrators. Separate communication lines for the utility and customer provide a closer link and added value to the electricity provider.
- » Substation Applications: High accuracy and linearity ensure quality billing data. Instantaneous values for a variety of quantities serve as a base for network monitoring. In addition, simultaneous communication channels ensure that several departments can benefit from the data received from the installed meter base.

KEY FEATURES

- » Proven experience in multiple markets
- » Accuracy and linearity
- » Multi-energy inputs
- » Simultaneous communication channels

Smart

Compliant with IEC standards, include innovative capabilities.

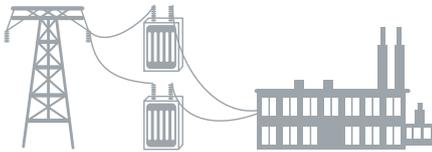
They allow multiple recording of load profiles along with local and remote communication on several lines.



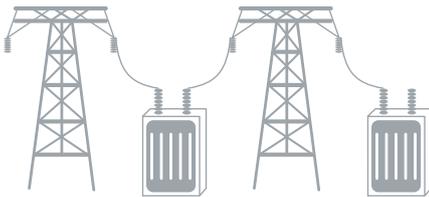
ACE SL7000 Meter series

- » Basic version without electrical I/O lines
- » Intermediate version with limited set of I/O lines
- » Flexible version with extended I/O capabilities
- » In all versions, several configurations are available

Commercial & Industrial Applications



Substation Applications



ADDING VALUE

Through of the latest-generation metrological and communications technology, ACE SL7000 meters bring significant benefits to utilities and end-users alike, adding value to every aspect of the metering process.

Utility Benefits

- » **Reduced Inventory Cost**
Thanks to a wide measuring range and an auto-ranging power supply for most variants, one type of meter covers many installations configurations.
- » **Reduced Data Collection Cost**
Read cycles are kept to a minimum by internal storage of all billing data, and powerful communications capabilities allow cost-effective remote meter reading. Conformance with the latest IEC communications standards ensures that the meters can be easily integrated into standard data collection systems.
- » **Reduced Non-Technical Losses**
Multiple safety features guard against human intervention. IEC7 evolution brings standard magnet detection and an optional terminal cover opening detection.
- » **Network Monitoring**
Our meters allow monitoring of the network and logging of anomalies. This can be used to prevent and repair faulty network conditions.

KEY FEATURES

Multi-Energy

- » Internal measurement of active, reactive and apparent power in each direction, and separately per phase.
- » Four pulse inputs provide additional metering information (versions with I/O lines).

Load Profiles

- » Storage of up to 16 channels for various quantities in two independent banks.

Multi-Rate

- » Multi-rate billing for energy and demand.
- » 10 Basic quantities can be selected for billing data.
- » 32 energy-rate registers and 24 demand-rate registers are available.
- » Rate switching mainly performed by internal clock, but can also be triggered externally (versions with I/O lines).

» Feature Upgrades

ACE SL7000 meters include an upgrade engine to further enhance functionality and keep metering costs to a minimum through the re-use of existing equipment. Starting with IEC7 version firmware, upgrades can now be performed remotely.

» Withstand Adverse Environments

Our meters are designed and tested to cope with severe environmental conditions such as electromagnetic disturbances and network condition variations regardless of the frequency contents.

End-User Benefits

» Consumption Monitoring

The meters provide information that is readable online through a dedicated communications port, so that end-users can monitor and control energy consumption.

» Supply Monitoring

Voltage quality parameters can be defined and the supply monitored. This data can be used for verification purposes when quality of supply is a contractual parameter.

» Excess Consumption Feature

ACE SL7000 meters can monitor consumption against configurable thresholds and trigger contacts if consumption exceeds limits.

Voltage Quality

- » Process voltage threshold levels to perform in-depth analysis of supply voltage fluctuations.

Auxiliary Power Supply (APS)

- » From IEC7 versions, the optional APS is isolated (2KV) from measurement voltages.

Communications

- » Up to three communication channels (2 electrical & 1 optical) depending on the meter version.
- » Two channels can be used simultaneously.
- » Local- and remote-reading ports.
- » Power to an external modem can be supplied from the meter (PSTN / GSM / GPRS / LAN); in IEC7 versions, the meter now provides up to 3W.
- » DLMS-Cosem conformance.



Technical Specifications

Ratings	Voltage: Direct Current: CT Connection:	3*57.7/100V up to 3*277/480V auto ranging In 5A, I _{max} 120A I _b 1A, I _{max} 10A
Network Types	Direct Connection: CT, VT connection:	4-wire meter remains operational in 3-wire connection without neutral 3- and 4-wire configurable configurations
Accuracy	Direct Connected: Transformer Connected: Reactive energy:	Class 1 or Class B Class 0.2S, Class 0.5S or Class C Class 1 or Class 2
Frequency	50 / 60 Hz	
Standards	Full compliance with IEC 62052, IEC 62053, MID standard EN50470-1 and EN50470-3 and CE marking standards (mechanical, climatic, electrical, electromechanical, metrological)	
Communications	IR-port (IEC 61107), optional RS232C and/or RS485 DLMS-Cosem Protocol (IEC 62056) Integrated in most market leading software packages	

Accessories

Communications	External modems Itron Sparklet modem, powered by the meter, is easily attachable under terminal cover Cabling for external communications devices IR-reading device for connection to PC
Configuration/ Calibration	Customer software for consumption monitoring Itron ACE Pilot Utility Software for configuration and reading
Installation tools	Transformer ratio labels Sealing kit
Documentation	Test certificate User guide Installation Manual



Dimensions

