



Low- and Medium-Voltage Product Portfolio



ERONEX ENERJi

PRECISION FOR EVERY SYSTEM



Solutions and products for low and medium voltage

We bring many years of experience in the energy sector. Our team is made up of specialists who are passionate about creating innovative solutions to today's energy challenges.

Our expertise in developing and supplying components for current and voltage transformers, as well as low- and medium-voltage sensors, makes us a trusted partner.

What sets us apart:

-Industry-specific expertise: Our team is made up of specialists who have spent decades working with the challenges and trends in energy supply. We understand your unique requirements and can deliver solutions tailored to you.

- **Innovative approaches:** We stay on top of the latest technology and invest in ongoing training. By integrating the newest technologies and processes, we ensure our products and services meet the highest standards.
- **Customer-focused solutions:** Our priority is our customers' needs. We work closely with you to understand your requirements and deliver the best solutions to boost your efficiency and competitiveness.
- **Reliability and quality:** We adhere to the highest quality standards across all our products and services. Our many years of experience are your assurance that you can count on us.



Current and voltage instrument transformers for medium-voltage indoor and outdoor use

Our medium-voltage transformers are designed for air-insulated and outdoor (open-area) insulated medium-voltage systems and can be used reliably across a wide range of climate conditions. The transformers are equipped with high-quality epoxy resin insulation and are designed to be maintenance-free throughout their entire service life.

Block-Type Current Instrument Transformer

Block-type current transformers are maintenance-free, cast-resin units designed for indoor applications and distinguished by high-quality epoxy resin encapsulation. All medium-voltage current transformers up to 36 kV comply with international standards such as IEC 61869, GOST, IEEE, and others.



Block-Type Voltage Instrument Transformer

Block-type voltage transformers are maintenance-free, epoxy-resin units for indoor use, available with single- or double-pole insulation designs. All medium-voltage units up to 36 kV comply with international standards such as IEC 61869, GOST, IEEE, and others.



Outdoor-Type Instrument Transformer

Outdoor (open-area) instrument transformers are suitable for outdoor systems up to 36 kV and feature epoxy resin casting designed to withstand harsh environmental conditions. They comply with international standards such as IEC 61869, GOST, IEEE, and others.



Split-core current transformer for ground-fault detection in medium-voltage cables

Split-core current transformers are primarily used for measurement and protection, especially for detecting ground faults in medium-voltage cables. Their separable (split) core design makes them ideal for retrofit installations. These transformers are maintenance-free and comply with international standards such as IEC 61869, GOST, IEEE, and others.



All current and voltage instrument transformers are designed, engineered, and manufactured to meet customer requirements. Accordingly, we can fulfill all customer requests, including accuracy class, insulation level (e.g., 40.5 kV), power rating, integrated fused transformers, and intended application.

Customer-specific requests—such as new design formats—can also be developed.

LPVT and LPCT

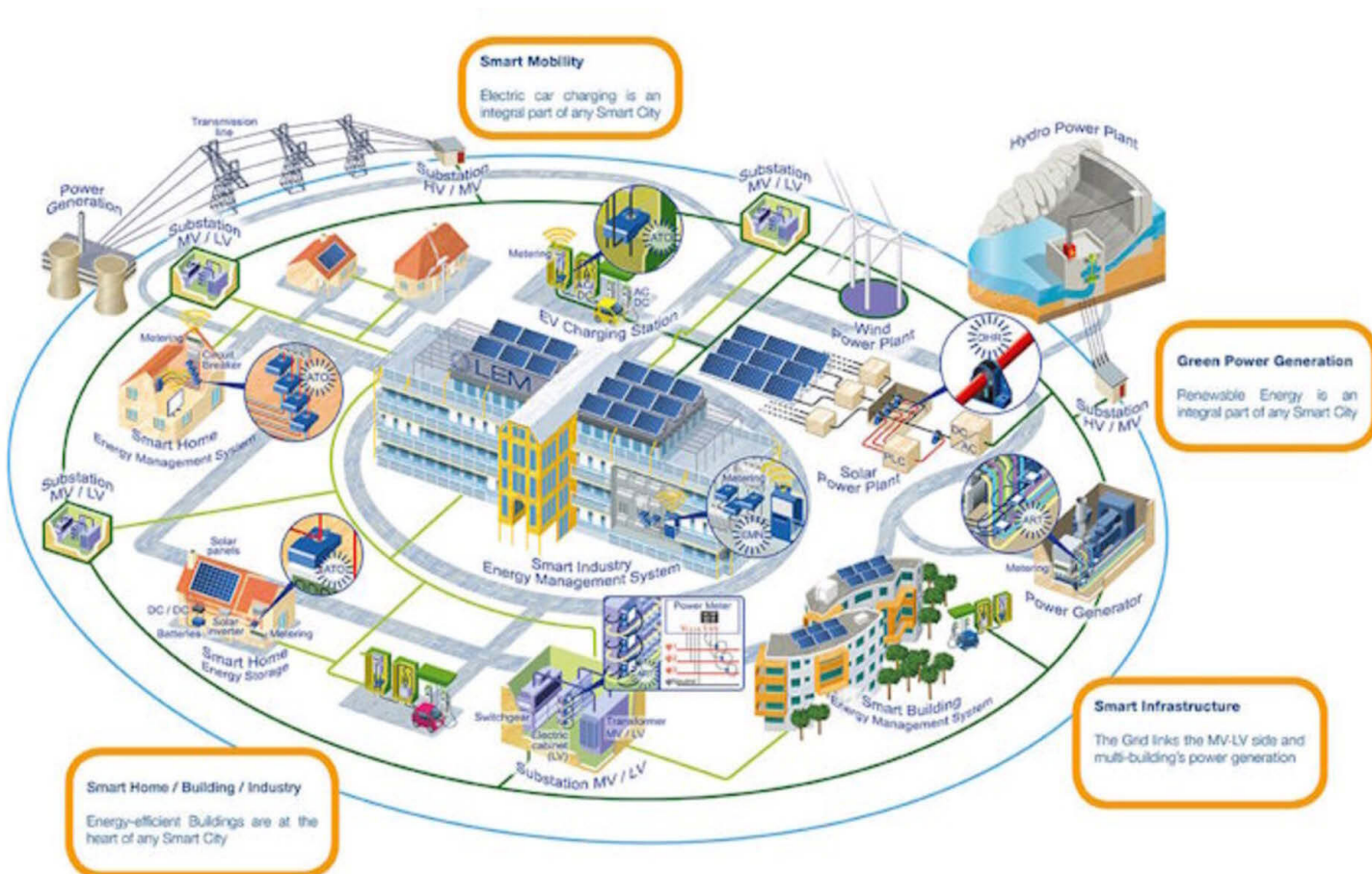
Current and voltage sensors for smart grid substations

A Low-Power Voltage Transformer (LPVT) and a Low-Power Current Transformer (LPCT) are non-conventional instrument transformers that measure voltage and current, respectively, based on Faraday's law. Their key advantage is improved personnel safety, since there is no risk of overvoltage at the secondary terminals. They also help reduce the ecological footprint because they can be manufactured with simpler insulation systems and environmentally friendly materials. In addition, these products can be designed for retrofit installation without de-energizing the line.

Why are these needed?

By installing a sensor and transmitting the measurement data to the grid operator, monitoring provides the visibility needed across the power network. This allows control equipment in the control center to be managed based on actual current and voltage conditions, ensuring a reliable energy supply with the right voltage quality. Line faults and undesirable current/voltage events can be addressed immediately, and the relevant location can be recorded so the necessary actions can be initiated.

The sensors are suitable for a wide range of installations, including gas-insulated switchgear, air-insulated switchgear, and outdoor applications. They withstand harsh environmental conditions and, thanks to the use of fully passive components, offer a service life of at least 30 years. With these features, they meet standard requirements in the energy sector.



ERXxxC-xx

Cone-shaped voltage sensor for T-connectors in medium-voltage gas-insulated switchgear. Complies with IEC standards; rated for voltage levels up to 24 kV.



ERXxxC-xx

Cone-shaped voltage sensor for T-connectors in medium-voltage gas-insulated switchgear. Complies with IEC standards; rated for voltage levels up to 36 kV.



ERXxxK-xx

Short-cone voltage sensor for T-connectors in medium-voltage gas-insulated switchgear. Complies with IEC standards; rated for voltages up to 24 kV.



ExxxR-xx

Ring-type current sensor for initial installations in medium-voltage applications. Complies with IEC standards; connection options include RJ45, cable, and push-in terminals.



ExxxE-xx

Ring-type current sensor for medium-voltage applications, suitable for both new installations and retrofit applications. The sensor features a split core secured with an Allen (hex) screw. Complies with IEC standards; the secondary connection is made via a two-core shielded cable.



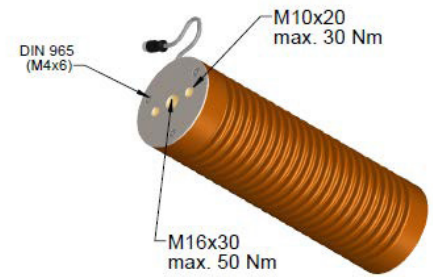
ExxxE-9L

Three-piece, ring-style summation current sensor for medium-voltage applications—ideal for both retrofit installations and new builds. The sensor features a split, highly flexible core that wraps around and closes over a metal section. Compliant with IEC standards; the secondary connection is made via a two-core shielded cable.



ERXxx-XX

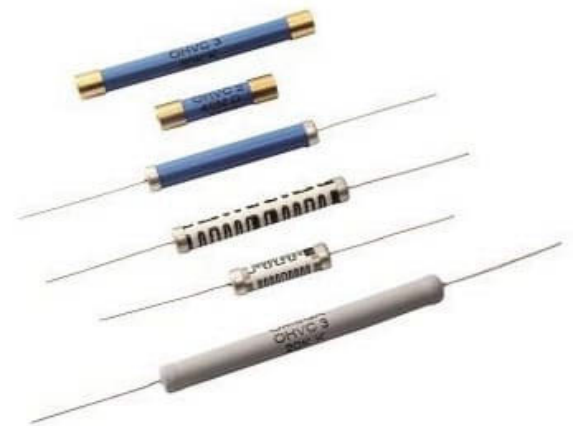
Bracket-mounted current sensor for outdoor (open-air) installation. IEC-compliant, with a maximum voltage rating of up to 36 kV.



High-Voltage Resistors

Our high-voltage resistors are purpose-built for demanding electrical applications. They deliver excellent stability and accuracy—even under extreme conditions. With their high durability and proven reliability, they support safe power distribution and precise measurement.

Thanks to state-of-the-art manufacturing technology, our high-voltage resistors meet the highest quality standards and are engineered for long service life. We also offer custom, application-specific solutions tailored to your exact requirements.



Cable Assemblies

Our cable assemblies provide tailored solutions for current and voltage sensors and are available in a range of configurations. Whether you need cables with RJ45 connectors or cables with 3- or 4-pin M8 connectors, we make sure our products meet your specific requirements.

Thanks to our flexible manufacturing capabilities, we can also deliver customer-focused solutions that integrate seamlessly into your existing systems. Our cables stand out for their high quality, reliability, and durability, making them ideal for use in demanding environmental conditions.



Low-voltage current and voltage instrument transformers

Current – Protective current transformer – Residual (summation) current – Three-phase current transformer – Short circuit

The instrument transformers in our product range provide a secondary current proportional to the primary current (1 A or 5 A) and are matched to the performance of the connected device. Our products make it possible to measure currents from 1 A up to 8000 A.

Current transformers are required to convert high AC currents into a galvanically isolated current at the 5 A or 1 A level. The primary and secondary currents are proportional and in phase.

Our product range covers low-voltage transformers for virtually every application:

Current transformers:

Plug-in current transformers with primary current ratings up to 8000 A
Split-core (separable) current transformers Wound current transformers
with primary currents from 1 A to 600 A Summation (totalizing) current
transformers with up to 9 primary circuits Calibratable current transformers

Voltage transformers:



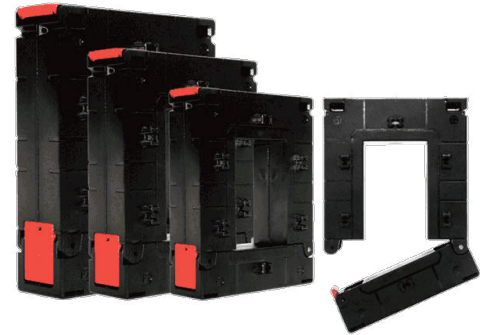
Slip-on current transformer (CT) for cable/busbar (Primary current range: 40–8000 A)

By routing a cable through the transformer more than once, the primary current value can be reduced without affecting secondary current, power, or accuracy class (primary current = rated current / number of passes; for example, with a 150/5 A transformer: 2 passes yields 75/5 A, 3 passes yields 50/5 A).



Split-core current transformer (CT)

Ideal for installation in existing systems where the primary circuit can't be interrupted or modified."



Wound-type current transformer (CT) (Primary current range: 1–600 A)

Used to measure AC currents in specific applications. Wound-type current transformers typically consist of a toroidal core that the primary conductor passes through, along with a winding that produces the secondary current. Their accuracy and reliability make these transformers an essential component in electrical engineering.



Summation (total) current transformer

They are transformers that combine currents from multiple lines to measure the total current. They produce a proportional secondary current used for measurement or control purposes.

These transformers are especially useful in power distribution for detecting overloads and optimizing grid-monitoring processes.



Insulators for low- and medium-voltage applications

Standoff insulators for low-voltage applications

These insulators are built to be shatter-resistant, offer excellent electrical and mechanical performance, and can be used in demanding operating conditions such as high ambient temperatures, exposure to corrosive substances, and vibration.

The hexagon-shaped center section and the two opposing flat faces make it easier to connect and secure the insulator. Compared with similar materials such as epoxy resin and polyglass polyester, it is healthier and safer for people.



Post-Type Insulators 1.2–38 kV

Indoor epoxy cast-resin support insulators can be used across all indoor applications. The same types (with special mounting hardware) are also available for tropical conditions.

Indoor epoxy cast-resin support insulators are solid, cylindrical units designed with the appropriate creepage distance and number of sheds.



Bushing insulators up to 38 kV

For use in oil-insulated equipment, commonly preferred for applications such as transformers, switchgear installations, capacitors, and more. Each bushing is tested for AC withstand voltage and partial discharge before leaving the factory. Primary conductors are manufactured from brass as standard. Upon customer request, primary conductors can also be produced in copper or aluminum.



Capacitive isolating insulators

Indoor voltage-divider insulators are used on phase conductors to detect the presence of voltage. Their basic operating principle is based on capacitive division of the phase voltage.

Voltage-divider insulators are used together with a capacitively coupled voltage indication system. To place an order, the following information is required: voltage test system (HR or LRM system); rated (operating) voltage; indicator capacitance.



Notes:
