

arteche



LOW POWER INSTRUMENT TRANSFORMERS FOR SMART GRIDS AND PLC COUPLERS

LOW POWER INSTRUMENT TRANSFORMERS

Distribution automation helps modern utilities to solve today's operation challenges, like small and Distributed Energy Resources integration. It brings more than attractive features and functionalities to electric power utilities, contributing significantly to improve operation management and making smart grid benefits real.

Distribution automation outlines challenges: medium voltage networks cover large areas, with different topologies and a huge quantity of nodes to monitor. Therefore, competitive, reliable and easy to implement solutions are required.

The innovative effort and a deep knowledge in the field of electrical instrumentation and measurement afford Arteche to develop a complete range of high accuracy medium voltage sensors. With a compact design, their standardization and performance give responses to the new challenges of distribution automation and smart grid deployments.

Arteche's Smart grid MV low power instrument transformers or sensors, installed in strategic network nodes provide key data to locate faults, to isolate them, to balance feeders load and to enable the most advanced smart grid functionalities (i.e.: Fault location, isolation and service restoration FLISR, load balancing LB, multilevel feeder reconfiguration MFR, Distribution Operation Model and Analysis DOMA).

Having a compact design, Arteche medium voltage sensors do not require onsite calibration and are specially designed to operate in all kind of secondary distribution environments: overhead lines, underground lines and GIS.

	Overhead	Indoor / Underground	
		For GIS	For AIS
PLC Couplers	Overcap	Plugcap / Plugcom	Undercap
Voltage sensors	Oversens	Plugsens / Plugcom	Undersens
Current sensor	Low Power Current Transformers and Rogowski Sensors		

VOLTAGE SENSORS

VOLTAGE SENSORS FOR GIS PLUGSENS:

- › The resistive voltage sensor sensART PLUGSENS has been specially designed for voltage measuring on MV switchgear with DIN-C connectors like pad mounted transformers or SF₆ Ring Main Units, up to 24 kV.

INDOOR VOLTAGE SENSOR UNDERSENS:

- › The resistive voltage sensor sensART UNDERSENS has been specially designed for voltage measuring applications over MV lines up to 36 kV, in air insulated indoor / underground installations.

COMBINED VOLTAGE SENSORS + PLC/BPL COUPLER FOR GIS PLUGCOM:

- › PLUGCOM integrates a voltage sensor and a PLC/BPL coupler in the same device, for applications that requires both functionalities implemented on the same MV cabinet, up to 24 kV.

OUTDOOR VOLTAGE SENSOR OVERSENS:

- › The resistive voltage sensor sensART OVERSENS has been specially designed for voltage measuring in outdoor applications, up to 36 kV.



› PlugSens



› UnderSens



› PlugCom



› OverSens

CURRENT SENSORS FOR SMART GRID

Low Power Current transformer

PHASE CURRENT SENSORS ICNH-1:

- › Current sensor for medium voltage lines. Window-type current sensors for indoor service. Manufactured as UNE, IEC, VDE and IEEE.

PHASE CURRENT SENSORS ICFH-2 AND ICFH-4:

- › Outdoor applications.
- › Current rating over Load Break Switch bushing for smart grid applications.

NEUTRAL CURRENT SENSOR ICFH-5:

- › Zero-sequence ground current measuring in MV underground lines.

Rogowski sensors

SPLIT ROGOWSKI SENSOR RGW:

- › Rogowski coil suited for lines up to 36kV.
- › Indoor applications.
- › Current rating over MV Shielded Cable for smart grid applications under IEC 61869-10 standard.



› ICNH-1 current sensor



› ICNH-2 current sensor



› Split core Rogowski sensor

COMBINED SENSORS

Combined LPIT for outdoor installations

OVERCOMB:

- › Voltage and current measurement sensor for outdoor applications, up to 36 kV.



› OverComb

PLC/BPL COUPLERS

After years of designing and manufacturing Medium Voltage couplers for PLC/BPL, ARTECHE's coupling solutions have become the main reference in the market and have already been installed more than 10,000 units in the whole world.

Our range of couplers offers the best performance available in communications. Arteche design allows an easy, quick installation and the safety of both the personnel handling the couplers during the installations and the safety of the electrical network.



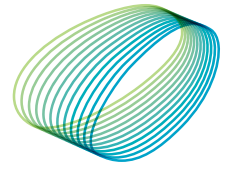
› PlugCap: PLC coupler for MV GIS cubicles



› Overcap: PLC coupler for overhead lines up to 36kV



› Undercap: PLC coupler for overhead lines up to 36kV



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Moving together