



CURRENT® family

IDC

Intelligent data concentrator

Reliable innovation. Personal solutions.

Preface

The Ormazabal **CURRENT® family Metering Portfolio** provides real-time, **Connected Intelligence™** that gives you a superior ability to aggregate, analyze and report both meter data and low voltage measurements.

Our Intelligent data concentrators use meter data and low voltage measurements to build a market-leading set of Smart Grid applications that facilitate asset management, performance benchmarking and eventually enable decisions on grid optimization. Our Intelligent data concentrators are designed to truly underline the **Connected Intelligence™** concept.

The **CURRENT® family Metering Portfolio** offers you a combination of Meter Data Collection and Low Voltage Supervisory functions in multiple product options that ensure you an available offering for every installation variant.

PRIME
ALLIANCE.

Proven Technology

Our Intelligent data concentrators provide you with all features of a mature AMI device. Featuring in multiple rollouts and collecting data from millions of meters in the field from multiple vendors, the **IDC** is an industry leading product.

Better still, we can offer you Low Voltage Supervisory functions integrated into the intelligent data concentrator device (models 971x). Simply a flexible and cost effective monitoring solution.

Integrated Solution

The **CURRENT® family** intelligent data concentrators integrate into a backend system. Our **OpenGrid® Software Platform** offers you a cockpit to manage your devices - an easy-to-use web based graphical interface. Furthermore **OpenGrid®** enables you to integrate the **IDC** into 3rd party applications.



Key features and benefits

Multi-vendor interoperability

Fully interoperable with meters and back-end management systems from other vendors implementing compliant technology (e.g. PRIME/DLMS, WebServices, ...)

Field proven

Both technology and implementation have been proven in successful mass rollouts at several utilities worldwide. Installation environments include overhead and underground networks, large transformers (>800 meters) and large substations comprising multiple transformers.

Smart Grid advantages from a Smart Metering rollout

Our Intelligent data concentrators include several Smart Grid applications such as energy balancing, automatic phase detection, and modular digital input/output controllers, to name but a few.

Scalable solution

Together with auxiliary nodes, our intelligent data concentrators offer coverage on all transformers at large multi-transformer substations.

Fully managed solution

Combined with the **CURRENT® family OpenGrid® Software Platform**, our Intelligent data concentrators maximize total Smart Grid benefit for capital invested whilst reducing overall cost and risk with savings in turn-key provisioning, meter data collection, Smart Grid analytics and several other Head End System (HES) features – simply easy to use!

Technical data

Physical features

Dimensions [H / W / D] 240 / 170 / 100 mm

Enclosure Plastic

Mounting DIN rail

Operating temperature -25°C to +70°C

Storage temperature -25°C to +75°C

IP rating IP20 per IEC 60529

LED indicators Power/Status/PRIME/Ethernet

Battery backed up RTC 3 years

Network interface Ethernet 10/100BaseT
Serial RS232 port
Serial RS485 port*

* Optional

Electrical features

Electrical 3 phase power supply from 100 Vac to 265 Vac, 50/60 Hz

Protection Over current and neutral fault immunity

Power consumption

230V_{AC} @ 50 Hz 4.2 W / 23.4 VA typical¹
5.4 W / 24.5 VA max²

120V_{AC} @ 60 Hz 3.4 W / 9.9 VA typical¹
5.2 W / 12.4 VA max²

Notes:

¹ Typical: Low PRIME load (beacons each 0.6 sec)

² Max: PRIME load (75% duty cycle)

Main function

	Model 9710	Model 9711	Model 9610
Device functionality	Base node Data concentrator DLMS client	Ethernet auxiliary node	Base node Data concentrator DLMS client
Low voltage supervision	Yes	Yes	No
Meter reading scalability	800	-	800
PLC injection	Single phase configurable	Single phase configurable	Single phase configurable
Phase mapping	Yes	Yes	Yes
Ethernet port isolation	10 kV / 1 min *	10 kV / 1 min *	2 kV / 1 min

* Optional

Supervision

LV basics supervision

- » Three phase voltages, currents, power (active, reactive and apparent) and power factor
- » Calculated neutral current on 4-wire systems
- » 4 quadrant energy meter
- » Hourly and daily load profiles
- » Energy measurement accuracy
- » +/- 0.5% on kWh and kVah
- » Current sensors
- » Conventional current transformers

Protocols

Network protocols

- » TCP/IP, HTTP, FTP, SCP
- » Device management protocols
- » Webservices, WebServer, SSH
- » Network time sync
- » Network time protocol (NTP)
- » Meter reading protocol
- » IEC 62056 (DLMS COSEM)

Standards

PLC

- » PRIME Specifications v1.3.6. compliance certification
- » PRIME topology evolution & performance reports
- » CENELEC-A band. Operating frequency per EN 50065-1 (from 3 kHz to 95 kHz)
- » Auxiliary nodes to support multiple injection points for multi transformer substations

Type Approvals

- » Europe: CE mark per Directive 1999/5/ec: radio equipment & telecommunications
- » Terminal equipment (R&TTE), which includes the following:
 - Directive 2006/95/ec: low voltage electrical equipment (LVD)
 - Directive 2006/95/ec: electromagnetic compatibility (EMC)

Safety Approvals

- » ITE safety – general requirements: IEC 60950-1:2005, class II, double insulation