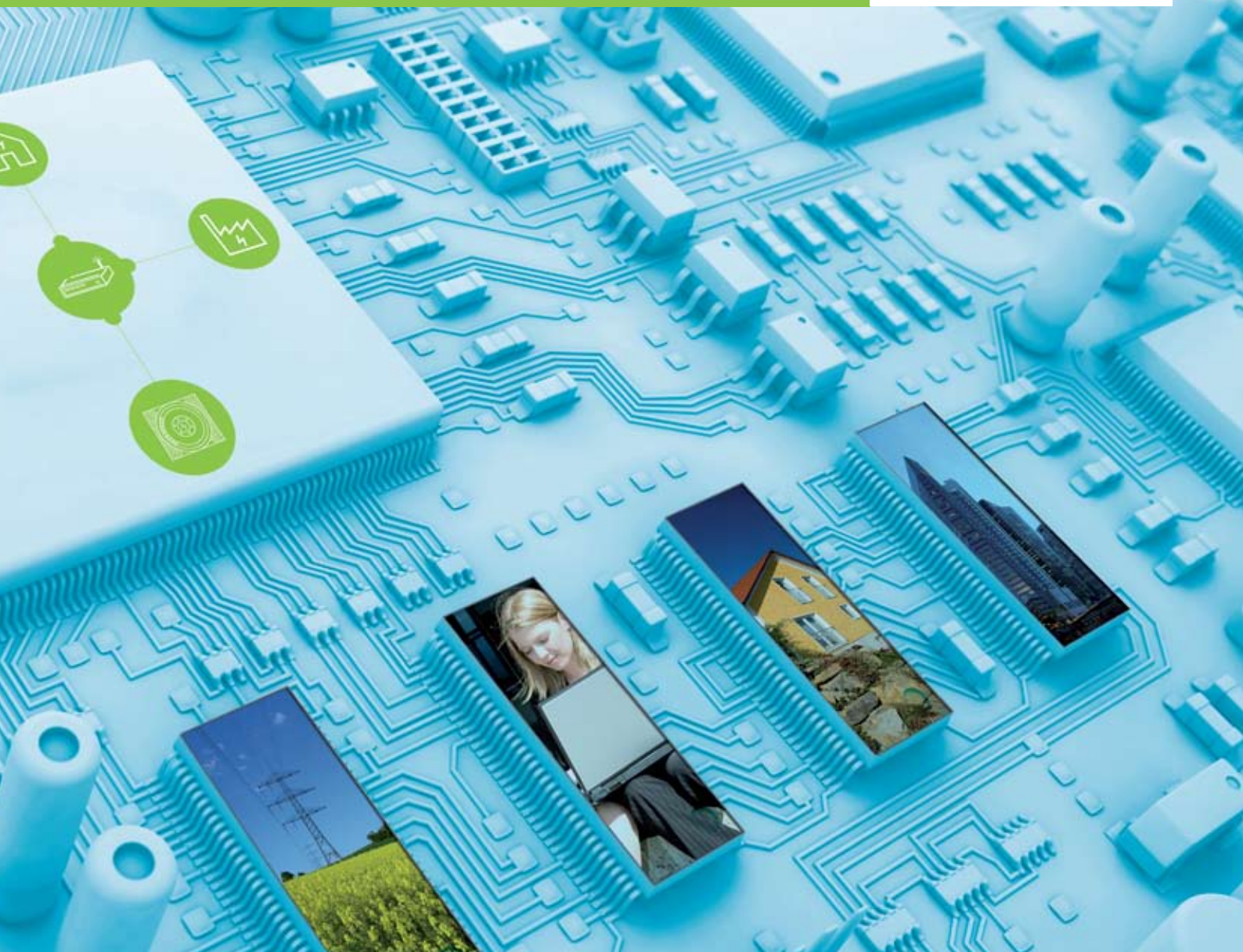


Electricity Meters

Communication Units for Industrial, Residential and Grid metering

Landis
Gyr+
manage energy better



Communication Units

The ultimate in flexibility



motralec

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Communication technology can change, but the meter will stay.

The ongoing liberalisation of the energy market brings new challenges for energy suppliers. Maximising the security of investments now has top priority.

Landis+Gyr communication units offer:

- open, standard-based communication
- highest possible flexibility
- extensive functionality
- unique modularity
- intelligent communication capability.

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Comprehensive functionality - intelligent communication

The market demands ever more flexibility and lower-cost solutions which new communication possibilities can deliver. Landis+Gyr offers you a comprehensive product range, for all measurement applications including commercial and industrial metering. The integrated or exchangeable communication units provide you with the scope you need for automatic meter reading applications.



Applications	Meter reading Maximum demand reset Meter synchronisation Meter check Operational check Re-programming
Communication Modes	Internet via LAN (Ethernet) and GPRS - static or dynamic IP-address possible Public switched telephone network via PSTN modems Public mobile telephone network via GSM/GPRS modems Standard interfaces and bus systems, e.g. RS232, RS485, CS, SO, Ethernet
Communication protocols	DLMS IEC 62056-21 TCP/IP IPT according to DIN 43863-4 Other protocols
Plug+play installation	No external power supply No wiring Free choice of terminal cover SIM card easily exchanged 4-level field -strength display Connection check Customer-specified information on faceplate, e.g. company logo or bar-code
Additional functions	Multi-master operation Time windows and time-master functionality Modem initialisation, reset and data flow control Communication monitoring



Communication

In „master“ operating mode, the communication units permit metering data with other protocols (e.g. SCTM, FNP, etc.) to be transmitted.

Additionally, multi-master operation permits local networks/links for up to 32 meters with access from multiple central stations with different communication paths. This guarantees high availability. Simple „plug+play“ installation also keeps installation costs to a minimum.

Complete and reliable availability of metering data ensures efficient billing process for invoices which can be verified by the customer.

Adapted to your local conditions, you can employ the most suitable technology and, now and in the future, read out, reset, synchronise, check or re-program your meters from a central station comfortably and in the most cost-effective way.

Communication solution for legacy meters

Meters which are already installed (including from other suppliers) can be equipped with our adapter ADP1, provided that they have a CS, RS232 or RS485 interface.

Software Tools

MAP 110	Service tool for test, certification and installation of the meter and its communication units, as well as for local service work
MAP 120	Programming tool for reprogramming the meter and its communication unit

Basic Functionality

Interface adaptors

	A1	A2	A4	A5	B1	B2	B4	D2	E20	E21*	E22*
GSM/GPRS Modem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GSM Modem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PSTN Modem (V22b/V34b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RS485 Interface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
RS232 Interface	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CS Interface	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ethernet Interface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
M-BUS HW Interface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 SO Pulse Inputs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Modems

	P30	P31*	P32*	G30	G31*	G32*	G4	G5	M20	M21*	M22*	M1
GSM/GPRS Modem	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GSM Modem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PSTN Modem (V22b/V34b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RS485 Interface	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RS232 Interface	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CS Interface	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 SO Pulse Inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* can be used as external communication units

IP based communication – open and cost efficient

Worldwide access to the Internet, with its low communication costs and open standards, creates completely new communication possibilities for advanced metering. Meters can communicate using Internet Protocol (IP) via GPRS (mobile telephone) or LAN-Ethernet connection. Because of open communication standards, you get flexibility and future-proof media choices.

IP technologies also offer other advantages: for example, reduction of readout times due to parallel data collection, and reduction of communication costs. New applications can also be generated. A flexible solution package from Landis+Gyr lets you continue to operate your existing infrastructure, such as central system, meters, etc. and simply upgrade to IP based communication.

If the central AMM system does not support IP based metering directly, we have developed the software necessary for remote meter reading via the Internet: iMEGA. This package forms the interface between the meters and the central system, and is also an important security component for the overall system, since only a valid password gives access to the meter. The software can be implemented for meters and AMR systems from several equipment suppliers.



Manage energy better

We deliver peace-of-mind when it comes to managing your energy. Decades of leadership in technology and in-depth knowledge at Landis+Gyr means we are able to offer you an extensive, high quality and proven portfolio.

Obtaining the highest level of energy efficiency has never been easier. We have translated our unique expertise of utility processes into integrated energy management solutions and we can help you streamline your processes, increase customer loyalty and secure revenue.

Let us tailor our innovative solutions to meet your specific needs. Whether electricity, water, heat/cold, gas metering or load management, we provide what you need to ensure that your energy is managed with increased precision and reliability.

With Landis+Gyr as your trusted partner, you can manage energy better.

Landis+Gyr in short

- More than 5000 employees worldwide
- Operations on all five continents
- Broadest portfolio of products and services in the industry
- 25 years of AMM experience
- More than 1000 AMM systems delivered
- More than 300 million meters produced
- Largest relevant engineering capacity in the industry
- ISO certified for quality and environmental processes
- Contributor to more efficient use of resources and hence better environmental outcomes
- World leader in integrated energy management solutions

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