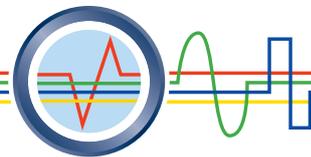
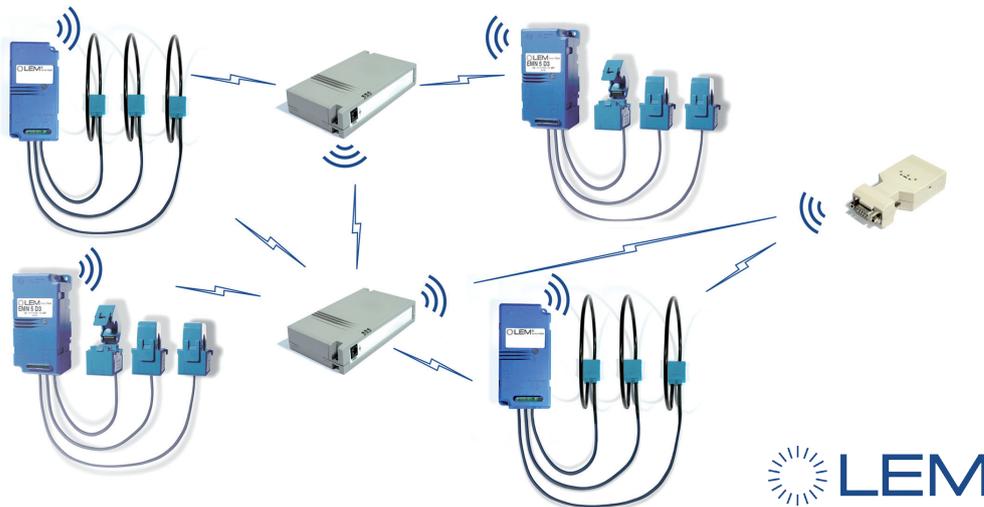


WIRELESS LOCAL ENERGY MEASURING SYSTEM



TRANSFORMATOREN
wesemann



SPECIFICATION SHEET

ADDITIONAL INFORMATION:

The MeshScope® wireless local energy measuring system actively measures and communicates capacity and current values as a node within an auto-configuration and auto-recovery wireless network.

OVERVIEW OF PROPERTIES:

- MeshScope compatible wireless sensor
- Operates on a worldwide available and licence free 2.4Ghz bandwidth with 15 channels that can be set by the user
- Wide range of electrically measurable parameters
- Direct connection to:
 - ♦ 3-phase star network (with or without zero) or delta connection 120/240VAC
 - ♦ 1-phase network 120/240VAC
- Draws supply voltage from the network
- Current levels: 5, 20, 50, 100A, 200A, 500A up to 2000A
- Accuracy: Active energy in accordance with IEC62053-21 class 1 standard
- Split-core and Rogowski current recorders
- CE and FCC conform hardware modules

WIRELESS ENERGY SENSOR

The MeshScope wireless local energy meter, Wi-LEM, is ideal for application in existing environments or new systems to be developed and perfectly suited for energy measurement, auditing and diagnostic assessment. Wi-LEM is a MeshScope split-core current recorder for electronic measurement of AC current waves.

MEASURED VALUE

The meter processes various sensor signals in order to generate electric values per phase (i.e. L1, L2 and L3). The possibilities of Wi-LEM are shown in the table below (grey fields):

	Configurable Reading Interval (5 to 30 minutes)													
	Interval Base Values									Cumulated Values				
	L1			L2			L3			Sum	L1	L2	L3	Sum
	Av	Min	Max	Av	Min	Max	Av	Min	Max	Sum				
Current (A)														
Voltage (V)														
Active Energy (kWh)														
Reactive Energy (kVarh)														
Apparent Energy (kVAh)														
Frequency														

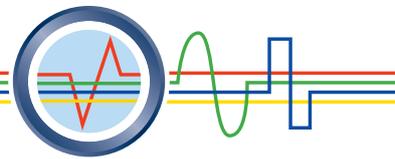


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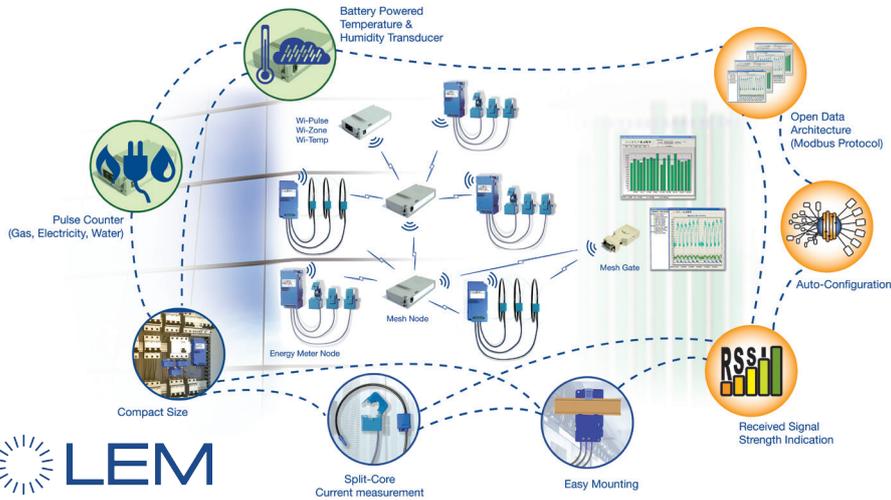
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ENERGY MEASUREMENT WHERE REQUIRED

Thanks to its compact design, Wi-LEM is perfectly suited for use in casings with limited space and can be installed in most electronic casings. The powerful signal ensures that the information can be forwarded on outside the casing without any problems. Wi-LEM transmits at a radio capacity of 10mW, at which a minimum distance of 30m without obstacles is feasible. The unit can be installed to measure in buildings, regardless of location. In addition, Wi-LEM can be used in different locations intermittently without having to complete the configuration steps first.

MESHSCOPE 4 NETWORK STRUCTURE

Wi-LEM uses MeshScope 4 network architecture, which is also frequently applied in the industry, which at the same time means application of the Persistent Dynamic Routing™ (PDR), a proven and patented technology. This makes it possible to set up an auto-configuration wireless mesh network. PDR uses a node-orienting network to effectively locate the various active components present and even makes it possible to reformat the network after any changes, if so required. In addition, by applying PDR, always the most efficient route is sought for transmitting information between the different nodes.

MeshScope makes it possible to build industrial networks that:

- are self-monitoring: An auto-configuration and auto-recovery mesh network does not require management
- are robust: A network that guarantees reliable and available data transfer, without fail
- are flexible: A network that instantly adapts in terms of design and radio frequency, after changes
- are energy-saving: Extremely low energy consumption
- are scalable: Through its application, it is possible to integrate hundreds of wireless nodes with a minimum of effort
- Have a low latency: Extremely short network communication lines

POSSIBLE APPLICATIONS

The Wi-LEM system is an energy meter that is used for measuring currents in order to be able to make an active capacity and energy calculation.

As part of the wireless energy management system, it offers a non-complex identification of energy consumption. Furthermore, the system can be used for cost and budget calculations in specific (industrial) environments or for use in commercial institutions and residential environments.

REMOTE MONITORING AND MANAGEMENT / SOFTWARE MANAGEMENT

The Wi-LEM system has been designed to communicate with software, such as the EMN monitor, through a MeshScope compatible wireless energy meter.

For further information on integrating Wi-LEM in your existing environment and the connection to existing software systems or customer-specific Business Intelligence (BI) solutions, please feel free to contact us.