

# Wireless M-Bus module

**Plug-and-play module prepared for system with self-installation**

**Embedded wireless M-Bus according to EN13757-3/-4:2005 standard**

**OMS Vol. 2, rev. 2.0 (Open Metering System)**

**Supporting operating modes: S1, S2, T1, T2**

**AES 128-bit data encryption**

**Transmitting one or two configurable registers regularly in a configurable interval**

**230 V tariff control**



## Application

The wireless M-Bus module introduces an option for wireless readout of a large number of consumer-related information, e.g. active and reactive consumption/production both as totals and in up to 8 tariffs. Also meter status information is available, as is per-phase power, current and voltage and voltage quality information.

The module is prepared for use in Automatic Meter Reading (AMR) systems based on the OMS specification, and can be integrated in an OMS-compliant radio network using any MUC-, MUS- and repeater-component, which also complies with the OMS specification.

The meter/module combination introduces standard AES 128-bit data encryption, ensuring safe data transfer for personal and confidential consumption data.



Kamstrup A/S  
Industrivej 28, Stilling  
DK-8660 Skanderborg  
TEL: +45 89 93 10 00  
FAX: +45 89 93 10 01  
info@kamstrup.com  
www.kamstrup.com

## Configuration

The module introduces a series of configurable parameters used in the wireless communication. The table below lists the parameters, the value ranges, and the default settings.

The parameters can be changed via the wireless M-Bus. Protocols and communication examples can be found in the technical description.

Configurable parameters in the wireless M-Bus module		
Parameter	Selectable values	Default Value
Configurable register read-out	All available registers (see technical description)	Consumed energy A+
Configurable update period	5-65535 sec.	7 min 30 sec. (= 450 sec.)

## Installation and connection diagram

The module is prepared for “Plug-and-play” in Kamstrup 162/282/382/351- electricity-meters of the J-generation and newer. The 230V-tariff control input connection is shown in the figure below.

The figure also shows where to connect an external antenna. An auto-detection circuit will switch to the external antenna when it is connected.



## Technical data

### Electrical data

#### Wireless M-Bus

Power supply	Internally via the electricity meter
Current consumption	Rx: 25 mA, Tx: 40 mA
Communication range	Up to 50 meter
Operating temperature	-40 – +85°C

#### Tariff Control

Number of tariffs	2 Tariff
Input voltage	0 V or 230 V
Recommendable cable cross section	0.5 mm <sup>2</sup>

### Mechanical data

Storage temperature	-40 – +85°C
Protective class	IP 51 in the electricity meter
Dimensions	42 x 92 mm

### Data/communication

Data link layer	OMS Vol. 2, rev. 2.0, EN 13757-4:2005
Application layer	OMS Vol. 2, rev. 2.0, EN 13757-3:2005
Supported modes	S1, S2, T1, T2
Max. transmit power	+10 dBm

## Order specifications

Description	Type no.
Wireless M-Bus module	6850064