

# M-Bus Modem

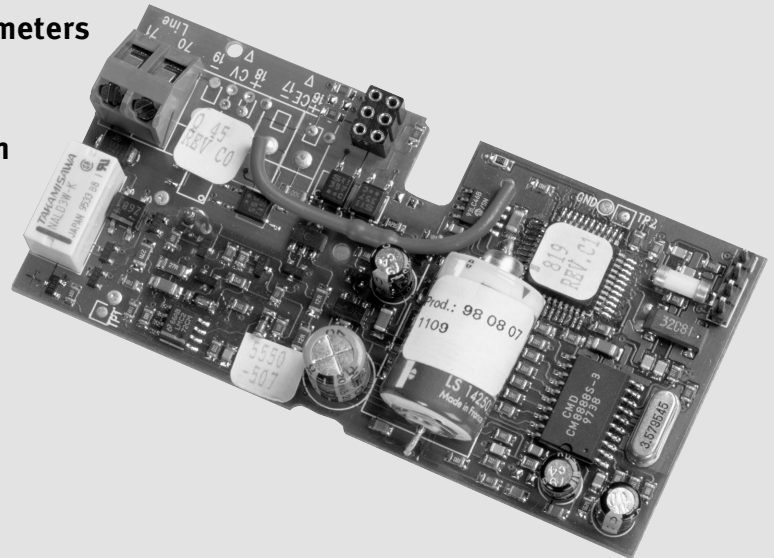
Remote reading of data from MULTICAL® thermal heat meter, with M-Bus module

Module can be incorporated in M-Bus master

Remote reading of up to 250 meters

Self-configuring

Data acquisition via PcModem



## Application

M-Bus modem can be used to remotely read M-Bus systems using a standard PSTN telephone system. This combination incorporates the advantages of the local M-Bus net and the telemetry in the form of PSTN modem reading.

Data can be acquired over several M-Bus systems, with up to 250 MULTICAL® heat meters in each M-Bus net. All data read by the M-Bus module are transmitted via the telephone system.

The modem is used together with Kamstrup's PcModem program. This means that M-Bus systems with modem can be read using the same system that is used to read MULTICAL® meters with modem modules.

The M-Bus modem has an automatic call-up function and it comes in two variants: one with pulse dialing and one with DTMF dialing (recommended). This is programmed when the M-Bus modem has been activated and calls the Pc-Master modem, which is connected to a computer that has the PcModem program installed. The program responds by giving the M-Bus modem an initialisation time and a call-back time.

When the modem rings to the Utility PC, all possible addresses (001-250) are checked and the meters located on the net are read. This means that the system configures itself - this applies even when meters are renewed or additional meters are installed on the net.



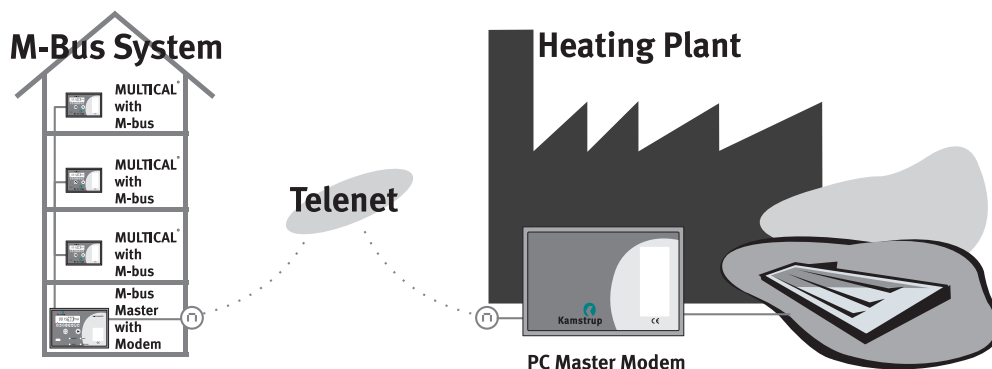
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## Data Read-out

Meter number, TA2, TL2, TA3, TL3, Aux1, Aux2, prog. No., Config. No., energy, volume, hour counter,  $T_{forward}$ ,  $T_{return}$ ,  $\Delta T$ , power, flow, peak, info. code,  $m^3 \times T_{forward}$ ,  $m^3 \times T_{return}$ , Cooling energy, Peak power/year.

Target days data: energy, volume, date.

## Connection Diagram



## Technical Data

ELECTRICAL DATA		MECHANICAL DATA	
Supply:	via telephonenet, min. 24VDC	Dimensions:	45 x 90 mm
Battery:	lithium battery	Ambient temperature:	0-55°C
Storage time @ 20°C:	3 months	Installation:	incorporated into M-bus master
Call up frequency:	1/24 hrs - short-term as frequently as every fifth minute	<b>APPROVAL</b>	
Call-up type:	DTMF or pulse	Approved in accordance with R&TTE	
Typical transmission time:	30 sec./Meter	CE marking:	complies with requirements for fitting into M-bus master
Telephone No.:	2 telephone numbers, each with 24 ciphers	The modem can dial via a switchboard.	

5810-266 GB/04.2001/Rev.B1

## Order Specification

	Type number
M-Bus modem module with pulse dialing:	6698002118
M-Bus modem module with DTMF dialing:	6698002319 (recommended)
Module built into M-bus master:	6698112112
Module built into M-bus master with display:	6698A12112
Software, PcModem:	S75-20-002

## Authorized Distributor

Please contact Kamstrup A/S for information about your nearest distributor.