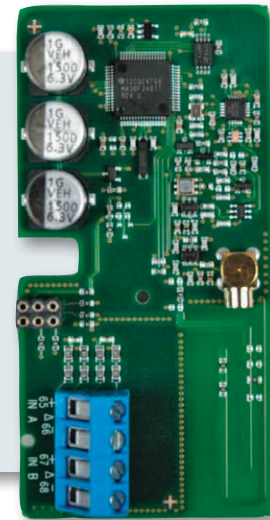


Wireless M-Bus, C mode

Module for MULTICAL® 602/62 and SVM S6

DATA SHEET

- Up to 13 years battery lifetime
- Stable and fast reading
- Unlicensed European frequency
- Standardised radio protocol
- Internal antenna and external antenna connection



Application

Optimal communication

The Wireless M-Bus module is designed for use in Kamstrup's heat, cooling and combined heat/cooling meters: MULTICAL® 602 and SVM S6, and in the water meter: MULTICAL® 62.

The module automatically finds the meter types in which it is installed and is ready for communication without further configuration within 16 seconds.

The Wireless M-Bus module uses a comprised communication protocol designed with a special view to hand-held solutions by which fast, stable and safe data communication is necessary. In addition, it offers very long battery lifetime. We call this comprised communication protocol C mode. It gives savings of up to 50% of the energy consumption compared to the existing modes in the standard, and this means an extension of the meter's battery lifetime

Even though the module is designed for hand-held solutions, it is prepared for forming part of network solutions such as a Radio Link Network.

Standardised communication

Kamstrup is actively participating in the standardisation work for updating the EN13757-4 standard, also known as the "Wireless M-Bus standard", and C mode is now part of this European standard on equal terms as the already existing protocols (modes) such as T mode and S mode.

C mode differs from the other modes by comprising and removing unnecessary and redundant data that are sent from the meter every 16 seconds.

Only every 8 package (approx. every 2 minutes) contains a complete data package, whereas the 7 intervening data packages only contain raw data.

Secure communication

In addition to stable and fast communication as well as long battery lifetime, C mode also offers a high data security.

The security does not only apply to the utility that, with the individual encryption keys and the AES128 encryption algorithm of Kamstrup's meters, is secured against data being tampered with or in any other way being changed on its way from the meter to the database.

The security also applies to the end-user who does not need to worry about whether the meter data can be read, misused or in any other way be connected with the individual meter (data privacy) even though data are sent from the meter every 16 seconds according to an open European communication standard.

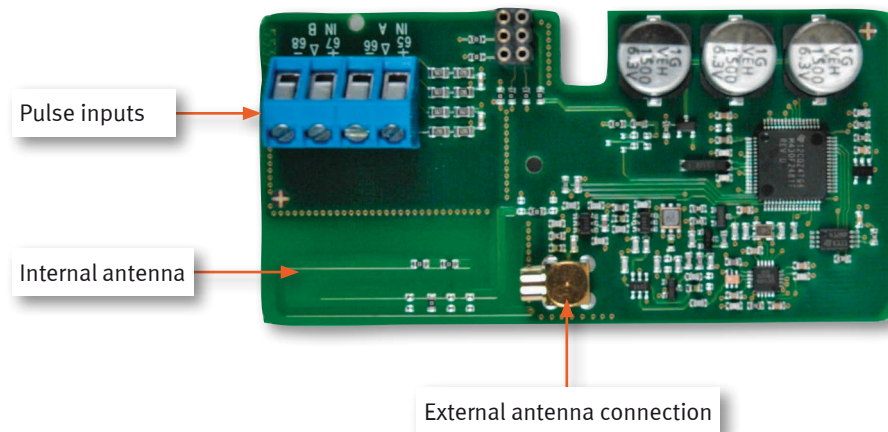


Wireless M-Bus, C mode

Module for MULTICAL® 602/62 and SVM S6

DATA SHEET

Module



Technical data

Frequency	868.95 MHz (EU licence-free area 868-870 MHz)
Communication	Wireless M-Bus, C mode, one-way communication
Standard	EN13757-4
Transmission interval	16 seconds
Transmission strength	10 mW
Battery lifetime	13 years
Range	– internal antenna Up to 200 meters – external antenna Up to 500 meters
Update interval (data)	Every 2 minutes

Mechanical data

Dimensions (L X W x D)	90 x 44 x 16 mm
Temperature range	-40°C...+ 70°C

Markings

R&TTE	EN300 220 – class 2 EN301 489
CE marked	

Wireless M-Bus, C mode

Module for MULTICAL® 602/62 and SVM S6

DATA SHEET

Wireless M-Bus module, standard registers

Data telegram

Current data	MULTICAL® 602 and SVM S6	MULTICAL® 62
Serial number	✓	✓
Heat energy E1 and/or cooling energy E3	✓	
Energy E8 m³ x T1	✓	
Energy E9 m³ x T2	✓	
Volume V1	✓	✓
In A	✓	✓
In B	✓	✓
Flow	✓	
T1	✓	
T2	✓	
Yearly max power		
TA2		
TA3		
Info code	✓	✓
Operating hour counter	✓	✓
Date	✓	✓

Monthly data		
Heat energy E1 and/or cooling energy E3	✓	
Volume V1	✓	✓
In A	✓	✓
In B	✓	✓
Date	✓	✓

Order data

Description	Type No.
Wireless M-Bus module, standard registers	6020030000000
External antenna, mini triangle antenna, 2.5 m cable	6699 448

Wireless M-Bus, C mode

Module for MULTICAL® 602/62 and SVM S6

DATA SHEET

Wireless M-Bus module, alternative registers

Data telegram

Current data	MULTICAL® 602 and SVM S6	MULTICAL® 62
Serial number	✓	✓
Heat energy E1 and/or cooling energy E3	✓	
Energy E8 m ³ x T1	✓	
Energy E9 m ³ x T2	✓	
Volume V1	✓	✓
In A	✓	✓
In B	✓	✓
Flow	✓	
T1	✓	
T2	✓	
Yearly max power	✓	
TA2	✓	
TA3	✓	
Info code	✓	✓
Operating hour counter	✓	✓
Date	✓	✓

Monthly data		
Heat energy E1 and/or cooling energy E3	✓	
Volume V1	✓	✓
In A	✓	✓
In B	✓	✓
Date	✓	✓

Order data

Description

Wireless M-Bus module, alternative registers

External antenna, mini triangle antenna, 2.5 m cable

Type No.

6020035000000

6699 448