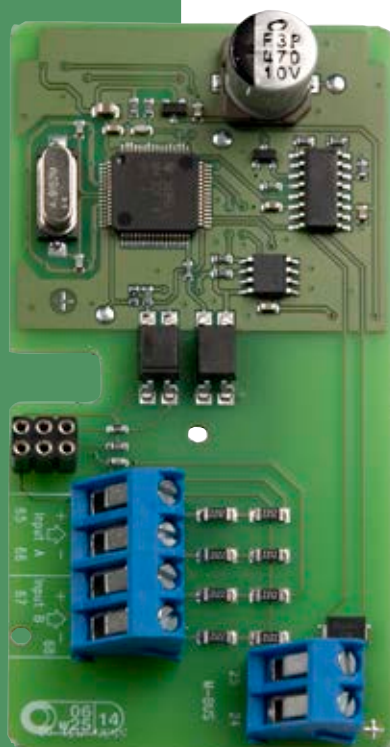


Data sheet

M-Bus module

for MULTICAL® 601/602
with alternative registers

- Supplied via M-Bus Master
- Two pulse inputs
- 300/2400/9600 baud
- Programming of primary address, M-Bus ID number, date/time and pulse inputs via the M-Bus Network
- Collision detection
- Supports primary/secondary/enhanced secondary addressing and wild card search
- Fulfils EN 13757



Application

Kamstrup has developed a M-Bus module for remote reading and programming of MULTICAL® 601/602.

The module is designed to work with the Scheduler topmodule, but can be used in other applications.

The module can also be used with MULTICAL® 61/62 and MULTICAL® 801.

The module is mounted in the meter's module area.

The module is galvanically separated from the meter and is supplied via the M-Bus master. Thus, the supply of the meter is not burdened by the module.

The module is fitted with pulse input for reading other meters, e.g. water or electricity meters.

By means of the M-Bus module primary address, M-Bus ID number, date/time and pulse input can be programmed via the M-Bus network.

The primary and secondary M-Bus addresses of the module are displayed in the meter.

Address fields

Primary (000-250)

When supplied from Kamstrup, M-Bus module will automatically use the 2-3 last digits of the meters' customer number as primary address. Otherwise there is no bond between customer number and M-Bus address. MULTICAL® 601/602 has separate registers for the primary M-Bus Addresses of the module.

Secondary (00000000-99999999)

Creating the secondary address, the last eight digits of the customer number are used as M-Bus ID number. Furthermore, eight additional digits from the module's software, incl. Kamstrup's manufacturer's ID, can be added, thus extending the secondary address to 16 digits.

Enhanced secondary (00000000-99999999)

The meter's serial number is used for enhanced secondary addressing. This number is unique of each meter and cannot be changed after production.

Wild card search

Some or all digits of the M-Bus module's secondary or enhanced secondary addresses can be replaced by wild cards.

The M-Bus module will not compare the wild cards to the corresponding digits of its own secondary or enhanced secondary addresses, and it is possible to communicate with the M-Bus module if the other digits fit.

Connections

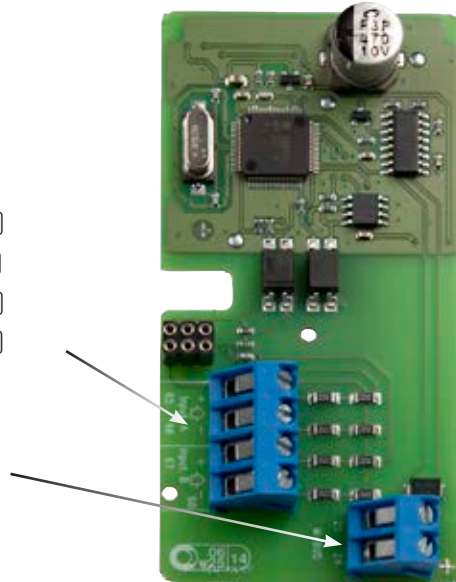
Module

Pulse inputs

- Terminal 65 Pulse input A/In-A (+)
- Terminal 66 Pulse input A/In-A (-)
- Terminal 67 Pulse input B/In-B (+)
- Terminal 68 Pulse input B/In-B (-)

M-Bus connections

- Terminal 24 M-Bus connection
- Terminal 25 M-Bus connection



Technical data

Physical features

Power consumption	1 unit load (1.5 mA) per M-Bus Slave
Supply	From M-Bus Master
R_{in} / C_{in}	410 Ω /0.5 nF
Max. cable resistance	29 Ω /180 nF per pair
Temperature area	0 - 60 °C

Markings/approvals

- EN 1434
- EN 13757
- CE approval

Technical data

Data telegram

M-Bus data	Actual data	Target data default settings: yearly values	Manufacture specified data
Meter number	Serial No.	Energy 1	Info Code
Manufacturer ID	Energy 1	Volume 1	Prog. No.
Versions ID	Volume 1	Peak flow 1	Config. nr. 1
Meter type	Hour counter	Input A	Config. nr. 2
Reading counter	T1	Energy 3	Meter No. 1
Configuration	T2	Energy 6	Meter No. 2
	Tdiff. (T1-T2)	Volume 2	Meter type + rev.
	T3	Date	Module type + rev.
	T4		Year/month info
	Power		
	Flow 1		
	Flow 2		
	Peak flow 1		
	Input A		
	Energy 3		
	Energy 4		
	Energy 5		
	Energy 6		
	Volume 2		
	Mass 1		
	Mass 2		
	Dato/Tid		

Ordering

Description

M-Bus module for MULTICAL® 61/62/601/602/801
M-Bus Master MultiPort 250D
M-Bus Master MultiPort 250L

Type No.

670027000000
MBM-M210000
MBM-M200000

Kamstrup A/S

Industrivej 28, Stilling
DK-8660 Skanderborg
T: +45 89 93 10 00
F: +45 89 93 10 01
info@kamstrup.com
kamstrup.com