

M-Bus module for Kamstrup electricity meters

DATA SHEET

- Plug-and-play module prepared for system with self-installation
- Compliant with EN 13757-2, -3
- Support of primary/secondary/enhanced secondary addressing and wild card search
- 300/2400/9600 baud rate communication
- Configuration of primary address, meter number and date/time
- Control of connect/disconnect functionality via M-Bus network
- Optional AES 128-bit data encryption
- 230 V tariff control
- Pulse input



Application

With the M-Bus module for Kamstrup electricity meters, Kamstrup provides a meter reading system solution. The meter supports secondary and enhanced secondary addressing which increases the number of allowable M-Bus slave modules in an M-Bus network.

The M-Bus module offers a list of meter data, e.g. 4-quadrant energy consumption and actual power consumption.

Furthermore, the M-Bus module provides an option for remote control of the connect/disconnect functionality in electricity meters with breaker via M-Bus networks. The module also allows access to the prepayment register if the meter is configured for prepayment use.

As for data security, the module can be configured to operate with AES 128-bit data encryption.

For the Kamstrup CT meter, the module provides additional data read-out of secondary active and reactive energy registration. It is also possible to read out and configure the transformer ratio in the meter.



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Connections

Pulse input connection

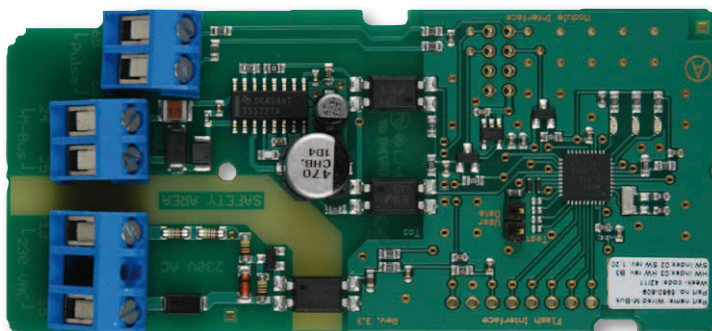
Terminal 65
Terminal 66

M-Bus connection

Terminal 24
Terminal 25

Tariff control – 230 VAC connection

Terminal 13
Terminal 15



Technical data

Address field

The M-Bus module supports primary, secondary and enhanced secondary addressing and wild card search.

Primary (000-250)

When supplied from Kamstrup, M-Bus modules will as default have primary address 0. The primary address can be changed via the M-Bus network.

Secondary (00000000 - 99999999)

The meter number is used for secondary addressing. This number is not necessarily unique for each meter and can be changed after installation via the M-Bus network.

Enhanced secondary (00000000 - 99999999)

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

Data telegram (Read-out with Request User Data)

Standard data	Manufacture specific data
A+, A-, R+, R-	Verification registers A+, A-
A+ tariff 1, tariff 2	Max P+ RTC
Max P+, Max. P-	Max P+ RTC tariff 1, tariff 2
Max P+ tariff 1, tariff 2	Max Q+, Max Q-
Acc. Max P+	Voltage L1, L2, L3
Actual P+	Current L1, L2, L3
Meter number, Serial number	Power L1, L2, L3
Time, Date, Hour counter	

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Additional data (Read-out with specific data request)

Standard data	Manufacture specific data	Manufacture specific data for Kamstrup 351B
Resettable counter A+ and A- A+ tariff 3 and 4 A- tariff 1, 2, 3 and 4 R+ tariff 1, 2, 3 and 4 R- tariff 1, 2, 3 and 4 Acc. Max P- Actual power P-	R1, R4 Acc. Max Q+, Acc. Max Q- Number of debiting periods Actual power Q-, Q+ Power threshold value Power threshold counter Meter status, RTC status Software version Pulse input Special data 1, Special data 2 Active tariff A+ prepayment	Secondary A+, Secondary A- Secondary R+, Secondary R- Secondary R1, Secondary R4 Secondary A+ tariff 1, 2, 3, 4 Secondary A- tariff 1, 2, 3, 4 Secondary R+ tariff 1, 2, 3, 4 Secondary R- tariff 1, 2, 3, 4 PF – total, L1, L2, L3 Transformer ratio Transformer ratio lock

Additional functionality

Standard functionalities	Manufacture specific functionalities
RTC Programming Add/subtract time offset	Tariff control Breaker control Primary address programming Meter number programming Debiting stop

For detailed information about the additional functionalities, e.g. specific data request, remote control of connect/disconnect, date/time programming etc., see “Technical Description” No. 5512-1042.

Electrical data

M-Bus

Power supply	Internally via the electricity meter (8 pins)
Power consumption	1 unit load
Operating temperature	-40°C - + 85°C

Pulse inputs

Cable length	Max 20 m
Cable capacity	Max 20 nF
Leak current	Max 0.5 µA
Frequency	Max 25 Hz

Tariff control on module port

Terminal 13	Terminal 15	Active tariff	Active tariff inverted
0 V	0 V	T1	T2
230 VAC	0 V	T2	T1

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Mechanical data

Storage temperature	-40°C - + 85°C
Protective class	IP51 in electricity meter
Dimensions W x L x H	42 x 92 x 18 mm

Standards and Approvals

EN 13757-2, -3
CE conform when mounted in electricity meter

Order specifications

Description	Type No.
M-Bus module	6850068