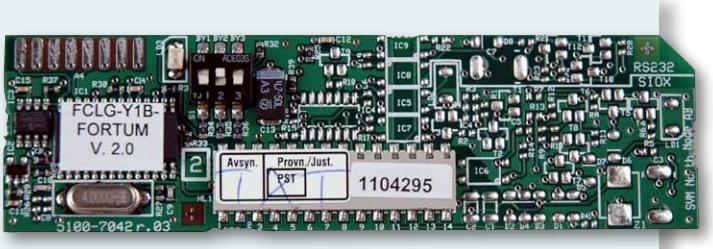
SVM Log option board (FCLG)

DATA SHEET

- **Energy and volume log**
- **Selectable periods**
- **Selectable parameters**
- **32, 64 or 128 kB**
- **Also available for F4HC**



Log option board (FCLG)

Calculator F4 can be equipped with a log option board for increased functionality. The log option board can log the energy and volume registers over a selectable time period. The period may use minutes, hours, days, weeks, months or years as time base. Also measured values, e.g. flow and supply and return temperatures can be logged at the end of each period. If a log option board is used in the F4HC, the registers for energy and volume may be logged for both heating and cooling.

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DATA SHEET

Energy & volume log

The log option board logs values over a period. This period should be configured prior to installation by using the Plug&Play service utility and the F4 adapter kit (FT-4-adapt-kk). The length of the period is set with a number, 1-255, followed by the time base in minutes, hours, days, months or years. The maximum number of periods depend on how many parameters are to be logged and on the memory size of the option board. For the 32kB log option board with one parameter, e.g. energy, the maximum number of periods is 422.

If all parameters ar logged in an F4 calculator the maximum number of periods will be 93. Both the parameter setting and time period can be configured by using the F4 adapter kit (FT-4-adapt-kk).

If a more extensive log capacity is required, the log option board can be ordered with 64kB or 128kB memory.

Example: The time base is set to days and the number to 7. One period is thus a week, and the log option board will log the chosen parameters once a week.

The following parameters may be logged:

For the F4:

- Energy consumption over the period
- Consumed total volume over the period
- Consumed volume in conjunction with energy calculation over the period
- Accumulated energy
- Accumulated total volume
- Accumulated volume in conjunction with energy calculation

For the F4HC:

- Heating energy consumption over the period
- Consumed total heating volume over the period
- Cooling energy consumption over the period
- Consumed cooling volume over the period
- Accumulated heating energy
- Accumulated total heating volume
- Accumulated cooling energy
- Accumulated cooling volume

Data Collection

The log option board collects the accumulated total energy and volume at the end of each period. From this information the consumption values are calculated.

Card Slots

The log option board should be installed in card slots B or E. If no extra communication output is re-quiredm also slot A may be used.

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Data Output

All the data from the log option board can be read via the display or the M-Bus.

Display

The display will show the latest logged values first. The user can toggle by using the push button to the previously saved values.

The following sequencies are shown on the LCD:

Dt	– Date when values are stored (YYMMDD)
tn	– Time when values are stored (HH:MM)
CH	– Consumed energy and volume (heat)
CC	– Consumed energy and volume (cooling)*
AH	– Accumulated energy and volume (heat)
AC	– Accumulated energy and volume (cooling)*
Fl	– Momentary flow
st	– Momentary supply temperature (high)
rt	– Momentary return temperature (low)

*) Only available in F4HC

On the display the “indicator arrow” will indicate the unit for the log value.

Example: Display shows “CH” sequence and “indicator arrow” indicates kWh. The value is consumed heat energy in kWh.

M-Bus

According to M-Bus protocols, the log option board will have maximum 37 telegrams.

Configuring

To configure the log option board it has to be in service mode, cf. Table 1. The board is configured by using the F4 adapter kit with ordering no. FT-4-adapt-kk.

The log option board can be ordered with 32, 64 or 128 kB memory capacity.

32 and 64 kB lasts for 1 million cycles and the 128 kB for 100.000 cycles.

Dipswitches

Option boards must be set correctly so that the meter will recognize the board correctly, see below:

Slot	BY 1	BY 2	BY 3
A	On		
B		On	
E	On		On
Service	( )	On	On

On – on
- off
( ) - on/off has no effect

Table 1, dipswitch settings on option board

Important! Never change the dipswitches setting during power on.

Installation

Important! Cut the power from mains and battery before installation to avoid damaging the option board or the F4 calculator.The power is cut by removing the 4-wired connectors “K2” and “K3”.

Important! Only one option board can be installed at the same time, otherwise the option boards and the meter may malfunction.

Recommended procedure:

1. Save data, short circuit connection “Save data”
2. Power off; remove connectors “K2” and “K3”
3. Disconnect the flow sensor; remove one cable connected to calculator terminal
4. Check that the DIP switches are correctly set for the selected card slot and install the option board into the slot. The component side shall be turned towards the terminals, and align the chambered end of the board with the right side of the calculator box. Ensure that all pins on the option board are correctly connected.
5. Turn power on; replace connectors “K2” and “K3”
6. Check that the board is properly installed; light “LD3” on the option board first blinks and then is turned off
7. If another option board is being installed, repeat steps 3-6
8. Re-connect the flow sensor.

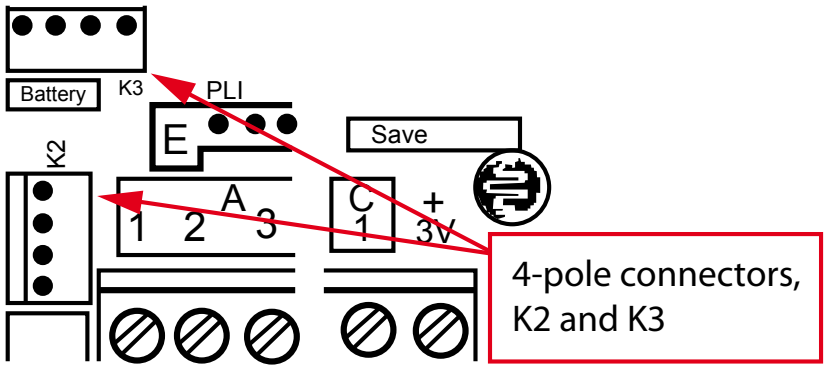

Fig 2, Connection terminal F4

Ordering

The full article number consists of product designation, delivery options and parameter file. To get the full article number, combine these numbers with a dash "-"

Product designation: **FCLG**

Delivery options: **ABC**

Parameter file No.: **XXXXXX**

Product design are the number of the option board "FCLG", log option board.

Delivery options are the logical variables that decide how the option board shall be delivered:

FCLG	A	B	C
Option board for F4 (32kb)	4		
For F4 with (64kb memory)	X		
For F4 with (128kb memory)	Y		
Board delivered separately		1	
Board mounted inside meter		4	
Board slot A			A
Board slot B			B
Board slot E			E

Table 2, Variable number for ordering

Parameter file is the programming number of the specific board. This number can vary from "000000 to ZZZZZZ". This number is provided by Kamstrup SVM when ordering option boards.

StandA Standard parameter file

StandA

Logged parameters are consumed heat energy and consumed total heat volume, with 1 hour time base.

Example: FCLG-Y1B-StandA

Log option board with 128kB memory, delivered separately. Standard konfiguration for hourly logging of consumed energy and volume (heat).

Article number key

Table 3 helps to acquire correct article number.

FCLG-	A	B	C	–	Parameter file
				–	

Table 3, Article number key

If uncertain always choose StandA.