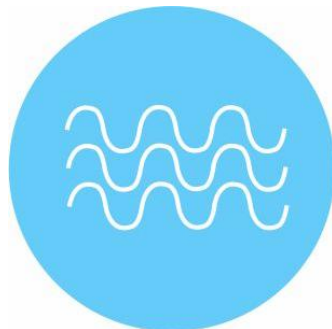


SUPPLEMENT TO Programming MANUAL

MODES - FLOW ANALOGUE AND DIGITAL



Programming of FLOW

The sampler has to be connected to a flow meter which either supplies an **analogue** signal (0/4 - 20mA) or a **digital** pulse.

The sample extraction is carried out according to this „flow signal “.

The programming of each of the modes (0 -20 / 4 - 20 / digital) is very similar. Only single menus are different (depending on the selected settings). The programming of these menus is depending on the context and thus results from it accordingly.

How to program FLOW ANALOGUE

Go to “PROGRAMS” main menu



Choose CHANGE



The actual programmed mode of program No. xx (here 2) will be shown. Here it's **TIME** mode

Press ENT for NEXT



You now can choose the required mode.

FLOW ANALOG Mode is now selected (marked by a hook)



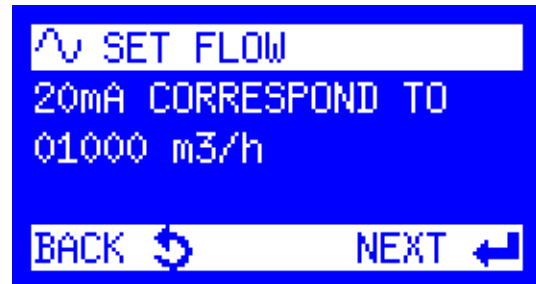
UNIT

choose the measuring unit you would like to use. Here it's m³/h



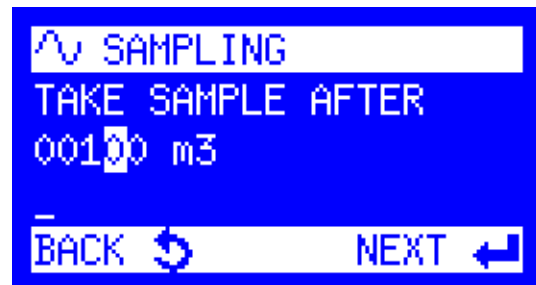
SET FLOW

The 20mA corresponds to the maximum flow of e.g. a plant. You have to set here the max. flow (e.g. 1000 m³/h) related to the max. mA-signal



SAMPLING

Setting after how many m³ a sample will be taken (e.g. 100 m³)



SAMPLE VOLUME

You can set the single sample volume between 1 and 250 ml



Remark:

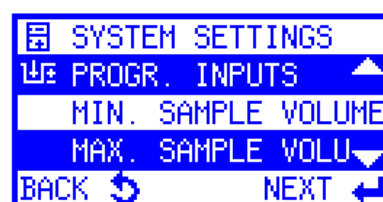
This is the default setting!

The min. and max. sample volume can easily be predefined in

SETUP → SYSTEM SETTINGS

→ MIN. SAMPLE VOLUME (1 ml)

→ MAX. SAMPLE VOLUME (9.999 ml)



FILL MODE (of the bottles)

How the bottles will be filled up.

TIME RELATED : bottle filling time in
hhh:mm or

SAMPLE RELATED: No. of samples which
will be filled up in each bottle



Continuing with TIME RELATED

Setting of the filling time per bottle



LIMITATION OF SPLS = Overfill Protection

Setting of the **max. Volume** per bottle, to
avoid overfilling



FUNCTION

DROP SAMPLES: if the “real” flow is higher
as the programmed flow, and thus there are
more samples requested as the max.
volume per bottle, you can decide whether
this samples shall be dropped or the
sampler should “**SWITCH TO NEXT
BOTTLE**” to take all requested samples



INFO

If SETTINGS COMPLETE, just press ENT

MORE SETTINGS -> see the main programming manual for more details.



PROGRAMS

You can start now the program you just programmed



PROGRAM START

It appears the basic information of the just programmed program.



You have the **option to start** the program

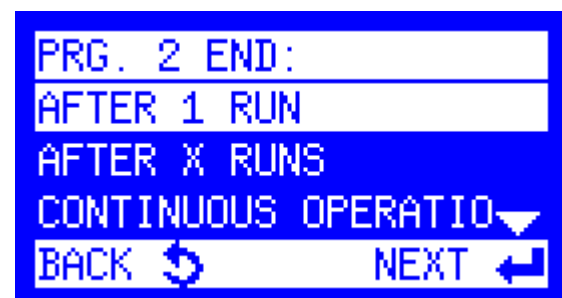
- IMMEDIATELY
- DATE/TIME
- WEEKDAY/TIME



Last step:

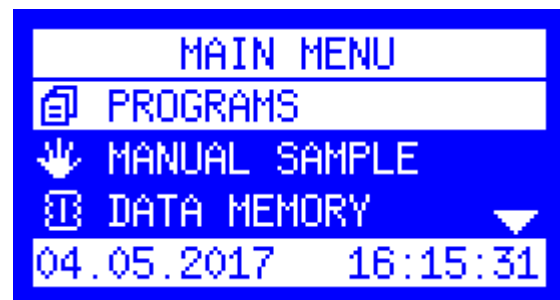
Setting of the **END-option** for this program

- AFTER 1 RUN
- AFTER X RUNS
- CONTINUOUS OPERATION



How to program FLOW DIGITAL

It's the same first steps as for all modes



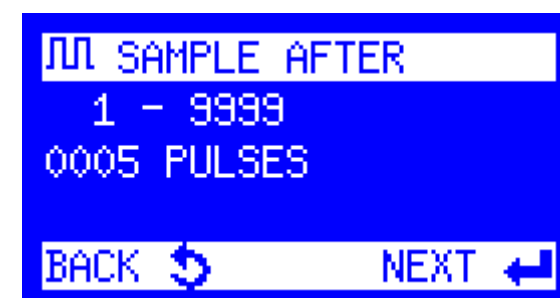
PROGRAM 2 MODE

Choose **FLOW DIGITAL**



SAMPLE AFTER

For **digital mode** make the setting after how many pulses the sampler shall take a sample. (here after 5 pulses)



SAMPLE VOLUME

You can set the single sample volume between 1 and 250 ml

Remark:

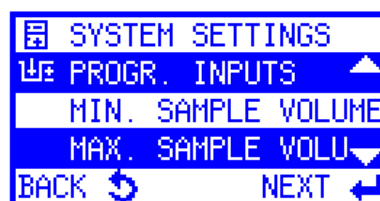
This is the default setting!

The min. and max. sample volume can easily be predefined in

SETUP → SYSTEM SETTINGS

→ MIN. SAMPLE VOLUME (1 ml)

→ MAX. SAMPLE VOLUME (9.999 ml)

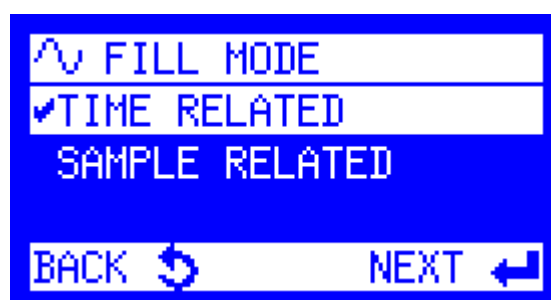


FILL MODE (of the bottles)

How the bottles will be filled up.

TIME RELATED : bottle filling time in hhh:mm or

SAMPLE RELATED: No. of samples which will be filled up in each bottle



Continuing with TIME RELATED

Setting of the filling time per bottle



LIMITATION OF SPLS = Overfill Protection

Setting of the **max. volume** per bottle, to avoid overfilling



FUNCTION

DROP SAMPLES: if the “real” flow is higher as the programmed flow, and thus there are more samples requested as the max. volume per bottle, you can decide whether this samples shall be dropped or the sampler should “**SWITCH TO NEXT BOTTLE**” to take all requested samples



INFO

If SETTINGS COMPLETE, just press ENT
MORE SETTINGS -> see the Main manual for programming for the details



PROGRAMS

You can start now the program you just programmed



PROGRAM START

It appears the basic information of this just programmed program.



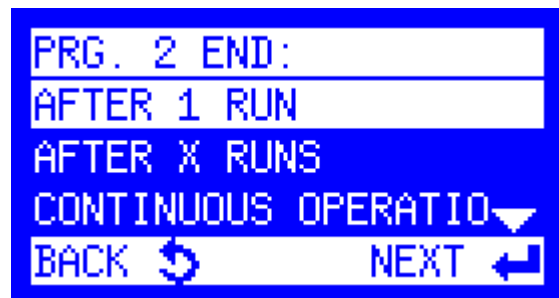
You have the **option to start** the program

- IMMEDIATELY
- DATE/TIME
- WEEKDAY/TIME



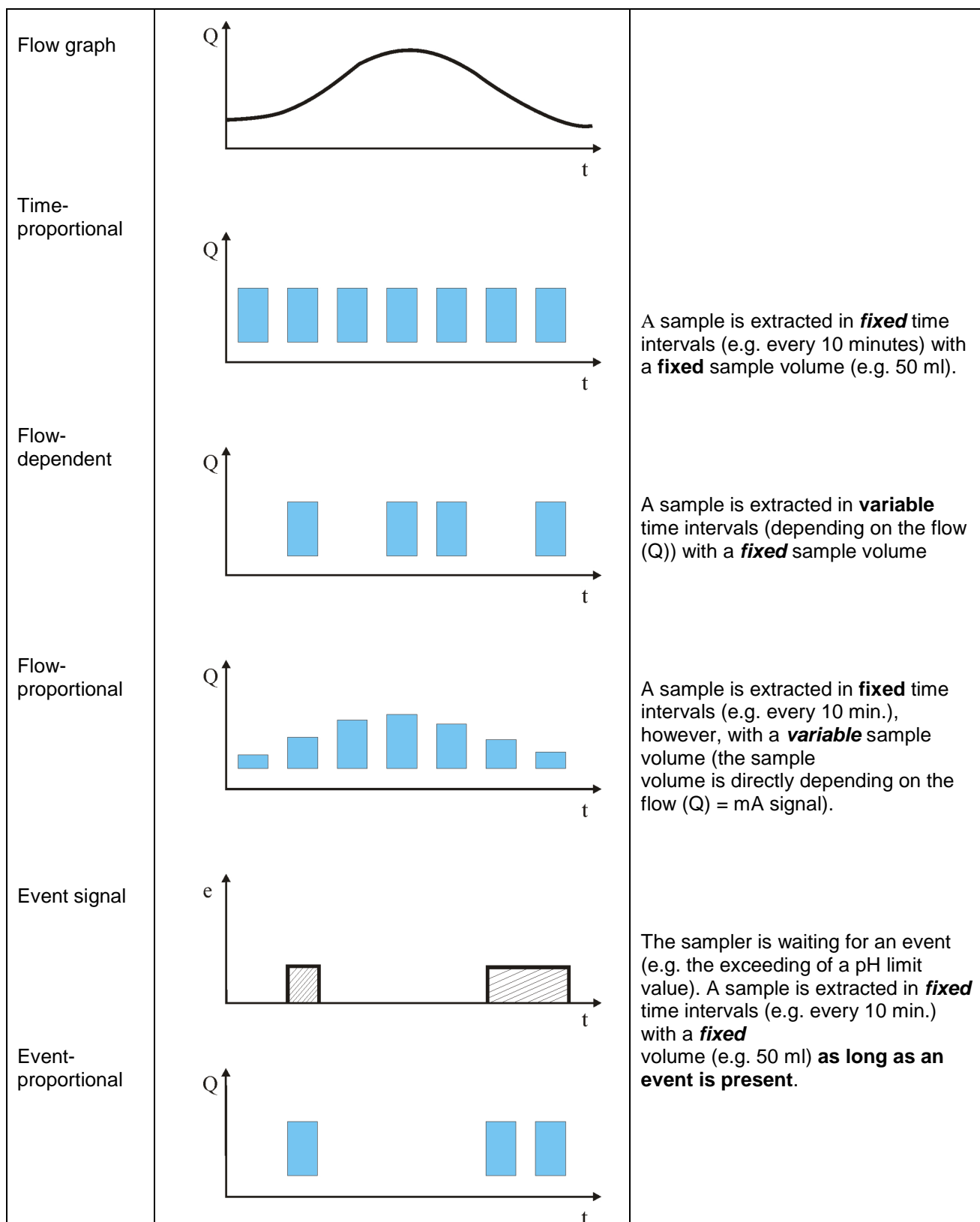
Last step: Setting of the **END-option** for this program

- AFTER 1 RUN
- AFTER X RUNS
- CONTINUOUS OPERATION



SAMPLING MODES

Graphical representation of sampling modes TIME-FLOW-EVENT



The following sampling modes can be programmed:

Sampling mode	Description	Example
Time-proportional	In this sampling mode, the single sample extractions as well as the bottle change are effected in fixed time intervals.	Values to program: sampling interval e.g. 00:05 hh:mm Bottle filling time e.g. 02:00 hh:mm
Flow-dependent - digital	In this sampling mode the sample extraction is triggered by flow pulses. The bottle change is effected in fixed time intervals or after a certain number of sample extractions.	Values to program: pulse divider e.g. 100 (that means that a sample is extracted after each 100th pulse). Bottle filling time e.g. 02:00 hh:mm or bottle change after X sample extractions e.g. 100
Flow-dependent - analogue	In this sampling mode samples are extracted according to the analogue flow signal (0-20 mA or 4-20 mA). The sample extraction is started when the programmed flow is reached. Thus the interval between the sample extractions varies according to the flow signal. The bottle change is effected in fixed time intervals or after a certain number of sample extractions.	Values to program: Flow per sample extraction e.g. 1 m ³ Bottle filling time e.g. 02:00 hh:mm or bottle change after X sample extractions e.g. 100
Flow-proportional	Samples are <u>not</u> extracted with a <u>fixed volume</u> but within a <u>fixed time interval</u> (e.g. every 10 minutes). For this kind of sampling, the variable automatic dosing system (available as option) is required. This system is <u>only</u> working with an <u>analogue</u> flow signal! The sample volume adapts itself <u>automatically</u> proportionally to the flow. This is achieved by proportionally scaling the mA signal and the maximum sample volume. That means, the sample volume is automatically adjusted to the mA-signal.	•Analogue signal (4-20 mA or optional 0-20 mA) •The max. sample volume at 20 mA is fixed to 200 ml. At an analogue signal of e.g. 10 mA, a 100 ml sample would be extracted accordingly. Sampling is effected in a fixed time interval of e.g. 10 minutes. Thus the sample extraction is always proportional to the flow, that means: high flow = big sample volume low flow = small sample volume.
Event-proportional	In this sampling mode the sample extraction is depending on an external event signal (potential-free make contact). The sample is only extracted as long as the signal is present. The sampling interval as well as the bottle change are programmed. The bottle is changed at each new event signal. If an event is longer than the programmed bottle filling time, two or more bottles will be filled for this event depending on the programmed bottle filling time.	Values to program: Sampling interval e.g. 00:05 hh:mm Bottle filling time e.g. 02:00 hh:mm