



BC-3N, BC-3 Batch controller

- Up to three (A, B, C) batching systems
- Batching mode: one or two-stage
- Dispensers may be switched on: individually or sequentially
- 5 measurement inputs
- 4 relay outputs
- Up to 2 analog 4-20mA outputs (option)
- Valve control using relay output or analog output 4-20mA
- Two totalisers for each input and dispenser
- Advanced data recording, 2GB internal memory
- USP port on front panel
- Ethernet port, server WWW, Modbus TCP
- RS485 communication port, ASCII and Modbus RTU protocols
- Two housing types: panel and wall-mounting



MEASUREMENT INPUTS

In the device there are five measuring inputs:

- 2 x I, two inputs enable connection of 0/4-20mA current loop transducers,
- 3 x I/PULS, three inputs enable connection of pulse transducer (0,001 Hz to 10 kHz) or 0/4-20mA current loop transducer.

Inputs can be used to measure flow relating to batching process or any other values.

RELAY OUTPUTS

Device is equipped with four SSR outputs 0,1 A/60 V. They can be used to control the valves or alarm signalization.

ANALOG OUTPUT 4-20mA

Device may be optionally equipped with two analog outputs for controlling valves.

FLOW MEASUREMENT

The device may work with flow meter of any type (e.g. ultrasonic, vortex, electromagnetic) using:

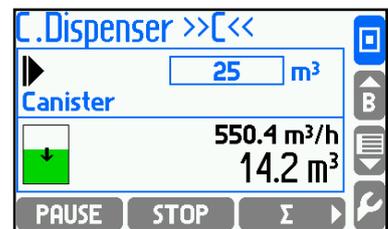
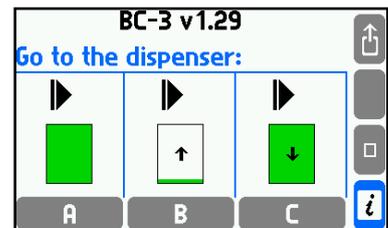
- 4-20mA or 0-20mA output signal proportional to actual flow rate,
- pulse output with constant weight per pulse,
- frequency output proportional to actual flow rate.

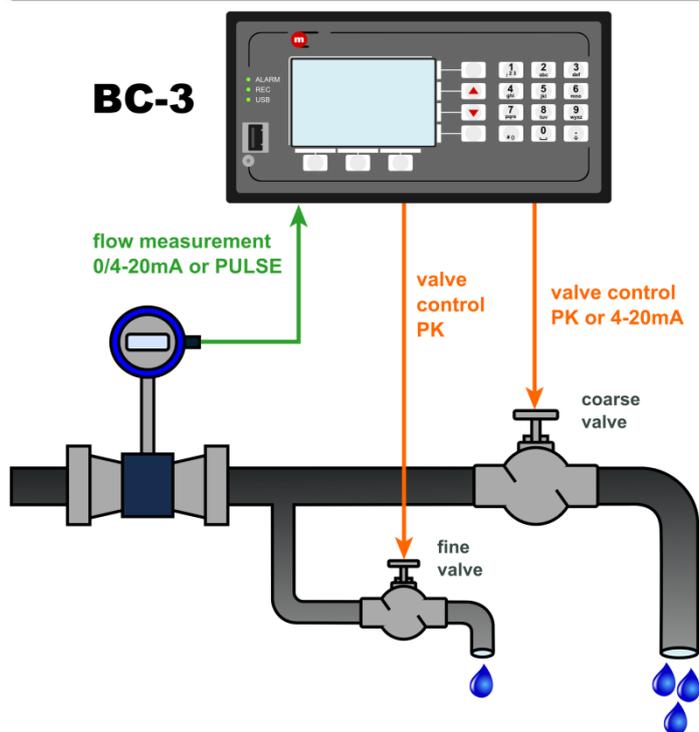
BATCHING MODES

There are two modes:

- one-step mode,
- two-step mode: in case relay outputs are used to control, two valves are being controlled: main (coarse) valve, which operates at the beginning of metering process only and fine adjustment valve, which operates all the time; in such a case two relay outputs are used. On the other hand, when current output is used to control, only one valve is being controlled, and the value of the current defines opening/ closing grade of the valve.

Batch controller have implemented learning algorithm allows increase of batching accuracy.





LAUNCHING MODES

Batching process may be activated in either mode:

- individual - each of the dispensers A, B or C is switched on separately by the user,
- sequential – once dispenser "A" has been switched on, two other units (B & C) are automatically switched on upon the set time delay.

TOTALISERS

Two totalisers may be configured for each IN1 ... IN5 input and each dispenser. The totalisers, which serve measuring inputs, count all the time, while those serving dispensers count only when metering process is ON. Selected counters are archived with a frequency of every 15 min.

ARCHIVING RESULTS

- Writing to internal 2GB memory.
- Local access to archived data via the USB port on the front panel.
- Recording frequency from 3 s to 24 h.

ALARMS

"Alarm condition" means:

- the set amount to be metered/ the amount at which metering was temporarily interrupted (Pause) has been overrun by the set value or the flow has not stopped in-spite of closing the valve within the set time
- the flow has not started within the set time from valve opening,
- the flow has started without metering command.

COMMUNICATION

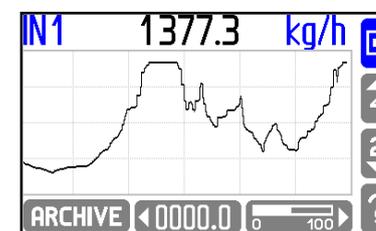
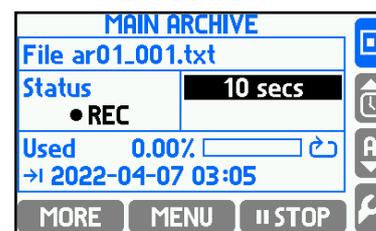
- RS485 port, ASCII and Modbus RTU protocols.
- Ethernet port, WWW server, Modbus TCP protocol.

POWER SUPPLY

- BC-3 version in panel housing, power supply 24 VAC/VDC,
- BC-3N version in wall-mounting housing, power supply 24 VAC/VDC and 230 VAC.

VERSIONS

BC-3	(N)	- x	
			Panel housing
	N		Wall-mounting housing
		- 0	Without 4-20mA outputs
		- 1	One 4-20mA output
		- 2	Two 4-20mA outputs



Device version BC-3 v1.29 / Datasheet version: 2015-05-07

