

8075 Batch Controller

Positive displacement batch controller



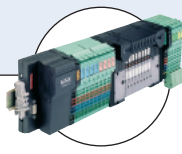
Type 8075B can be combined with...



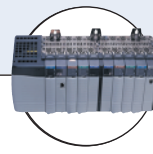
Type 2100 (8692)
Control valve with
TopControl



Type 8792
Continuous
SideControl



Type 8644-P AirLINE
Valve island with
electronic I/O



PLC

- Dosing
- Automatic calibration: TEACH-IN
- Possible check of input/output signals
- Batched volume and totalizers displayed

This positive displacement flow batch controller with display is designed for use in slightly viscous fluid like glue, honey or oil.

The batch controller is made up of a compact fitting (S070) and an electronic module (SE35) quickly and easily connected together by a Quarter-Turn. The 8075 batch controller is mounted in a pipe in series with the valve. The unit controls the opening of the valve and measures the quantity of the fluid which flows. The unit also closes the valve when the pre-programmed quantity has been delivered.

The electronic component needs a voltage supply of 12-30 V DC or 115/230 V AC and two output relays are used to activate the valves and to initiate alarms. The following dosing and filling operations are possible:

- Local dosing:

the user enters the quantity to be metered and initiates the dosage from the keypad.

- Local dosing with pre-set quantity:

the user selects a quantity which has been pre-set and initiates the dosage from the keypad.

- Remote control dosing

using a rotary knob (selecting a pre-set quantity) or binary data inputs.

- Dosing controlled by a PLC unit

using binary data inputs.

- Automatic dosing controlled by variation of pulse duration.

The quantity of the dose is directly proportional to the duration of a pulse.

General data	
Compatibility	With fittings S070 (see corresponding data sheet)
Materials	PC Polyester / Stainless steel PA
Materials wetted parts	Aluminium, stainless steel (316F/1.4401)
Fitting	PPS, Aluminium, stainless steel (316F/1.4401)
Rotor	Stainless steel / FKM (EPDM or PTFE on request)
Shaft / Seal	
Display	15x60 mm, 8-digit LCD, alphanumeric, 15 segments, 9 mm high
Electrical connections	Cable glands M20x1.5
Voltage supply cable	max. 50 m, shielded, 1.5 mm ² max. cross-section

Complete device data (fitting + electronic module)	
Pipe diameter	DN15 to DN100
Measuring range	2 to 1200 l/min (0.26 to 320 gpm) for viscosity > 5 mPa.s 3 to 616 l/min (0.78 to 320 gpm) for viscosity < 5 mPa.s
Medium temperature	Aluminium body 0°C up to 80°C (32°F to 176°F) Stainless steel body 0°C up to 100°C (32°F to 212°F)
Fluid pressure max.	DN15 55 bar (798 PSI) (threaded process connection) DN25 55 bar (798 PSI) (or flanges rules where fitted) DN40, DN50 / DN80 / DN100 18 bar (261 PSI) / 12 bar (174 PSI) / 10 bar (145 PSI)
Viscosity	1 Pa.s max. (higher on request)
Accuracy	± 0.5% of Reading
Programming mode	Threshold, window or hysteresis
Repeatability	≤ 0.03% of Reading

8075 Batch Controller

bürkert

Electrical data	
Power supply (V+)	12-30 V DC \pm 10%, filtered and regulated or 115/230 V AC 50/60 Hz (see technical specifications 115/230 V AC)
Reversed polarity of DC	protected
Current consumption with sensor (without consumption of inputs/output)	\leq 70 mA
Input	4 binary inputs, 5... 30 V DC - impedance 3.3 k Ω Functions: dosing quantity choice, start-stop dosing
Output	Polarized, potential free, 5...30 V DC; 100 mA, protected, line drop at 100 mA: 1.5 V DC - for status and alarm messages Relay 2 relays, freely configurable, 3 A, 230 V AC

Technical specifications 115/230 VAC	
Voltage supply available inside the device	27 V DC regulated - max. current: 125 mA integrated protection: fuse 125 mA temporised power: 3 VA

Environment	
Ambient temperature	0°C up to + 60°C (32°F to 140°F) (operating and storage)
Relative humidity	\leq 80%, without condensation

Standards, directives and approvals	
Protection class	IP65 with cable or screws plug mounted and tightened
Standard and directives CE	
EMC	EN 61000-6-3, EN 61000-6-2
Pressure	Complying with article 3 of chap. 3 from 97/23/CE directive.* (without CE mark)
Security	EN 61010-1
Vibration	EN 60068-2-6
Shock	EN 60068-2-27

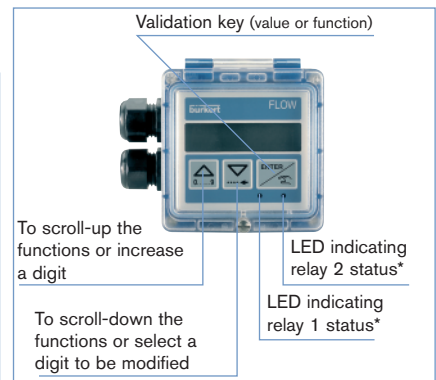
* For the 97/23/CE pressure directive, the device can only be used under following conditions (depend on max. pressure, pipe diameter and fluid).

Type of fluid	Conditions
Fluid group 1, chap. 1.3.a	Forbidden
Fluid group 2, chap. 1.3.a	DN \leq 32, or DN > 32 and PN*DN \leq 1000
Fluid group 1, chap. 1.3.b	PN*DN \leq 2000
Fluid group 2, chap. 1.3.b	DN \leq 200

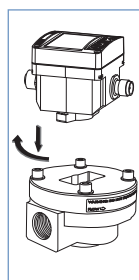
Operation and display

The device can be calibrated by means of the K-factor, or via the TEACH-IN function. User adjustments such as measuring range, engineering units, pulse output are carried out on site. The operation is specified according to three levels:

Indication in operating mode/display	Parameter definition	Test
- dosing amount - dosing mode - main totalizer - daily totalizer with reset function	- language - engineering units - K-factor/TEACH-IN function - selection of dosing mode - over-run correction - alarm - function mode of relays - reset main totalizer	- display of state of binary inputs - relay test - frequency test



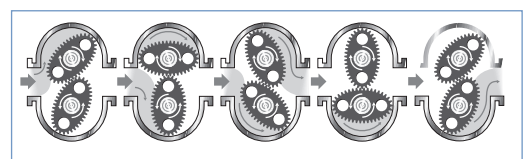
Design and principle of operation



The 8075 batch controller is built up with an SE35 electronic module associated to a fitting S070 with integrated measurement oval rotor. The connection is made by means of a Quarter-Turn. The output signals are provided via two cable glands.

If liquid flows through the pipe the rotor turns. This rotation produces a measuring signal in the transducer. The frequency is proportional to the flow of the fluid.

A conversion coefficient (K factor, available in the instruction manual of the fitting S070), specific to each pipe (size and material) enables the conversion of this frequency into a flow rate.

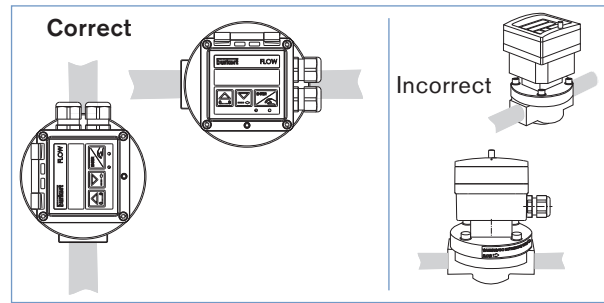


Installation

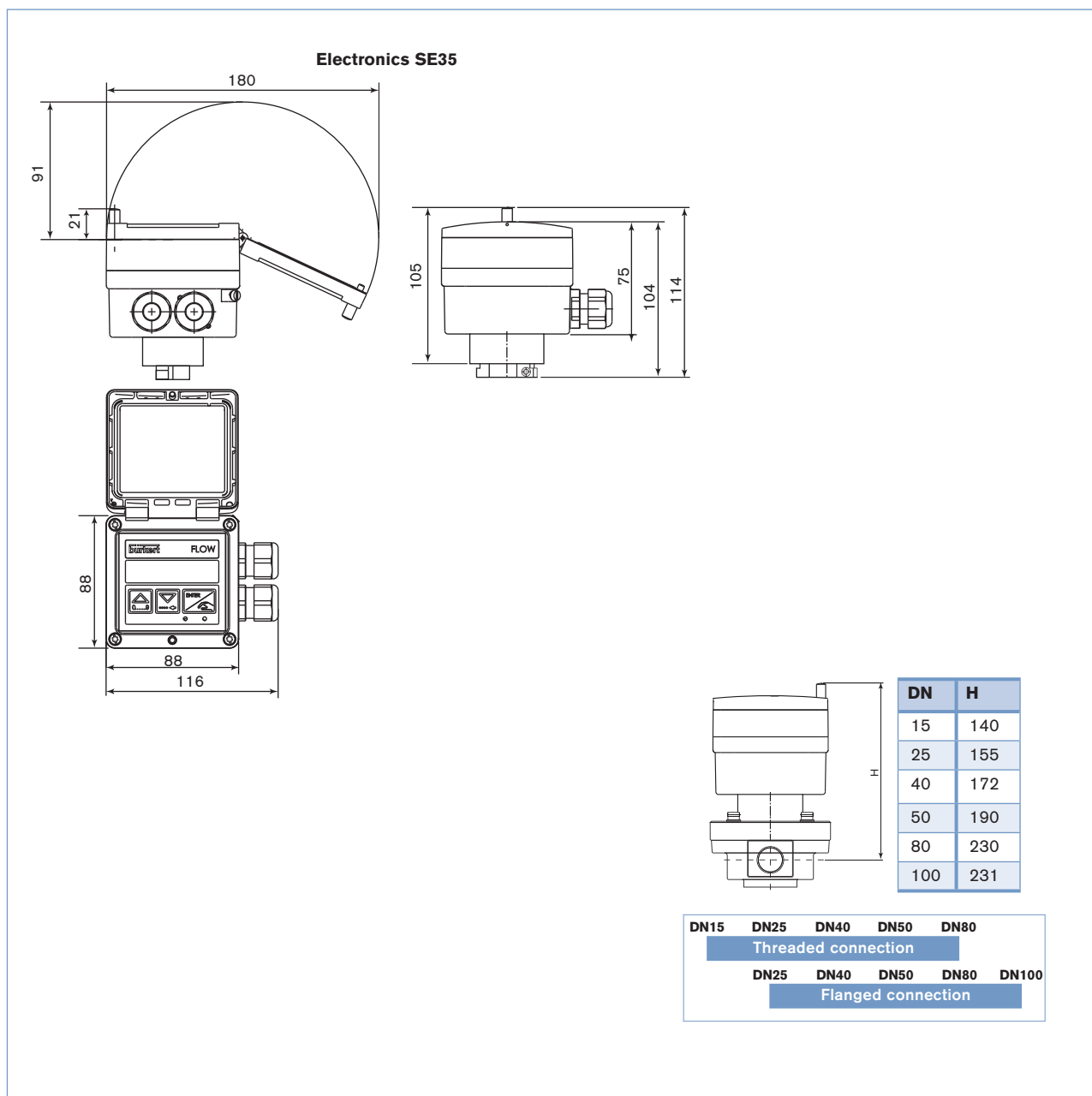
The fitting can handle particle sizes up to 250 µm. To prevent damage from dirt or foreign matter, we strongly recommend the installation of a 250 µm strainer as close as possible to the inlet side of the meter.

The pipe must be filled with liquid and free from air bubbles. Avoid air purge of the system.

Ensure the fitting is installed according to opposite drawing. Flow direction is marked by an arrow on the body.



Dimensions [mm]



Ordering information for compact batch controller Type 8075

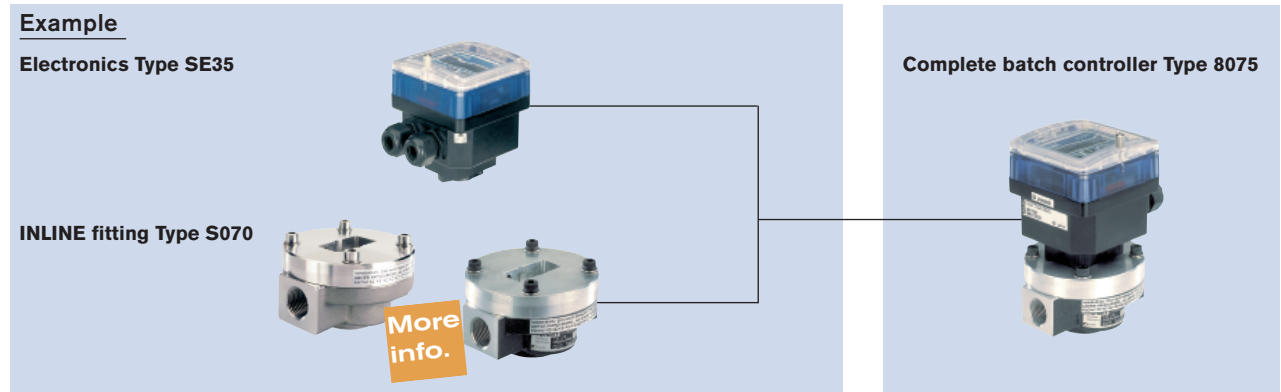
A complete batch controller Type 8075 consists of an electronics Type SE35 and a Bürkert INLINE fitting Type S070

The following information is necessary for the selection of a complete device:

- **Item no.** of the desired electronics **Type SE35** (see Ordering chart, below)
- **Item no.** of the selected INLINE fitting **Type S070** (see separate data sheet)

You have to order two components.

When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the data sheet.



Ordering chart for electronics Type SE35

Specifications	Voltage supply	Relays	Sensor version	Electrical connection	Item no.
2 totalizers	12-30 V DC	2	Hall	2 cable glands	443 360
	115/230 V AC	2	Hall	2 cable glands	423 926

Ordering chart - accessories for batch controller Type 8075 (has to be ordered separately)

Specifications	Item no.
Set with 2 cable glands M20x1.5 + 2 neoprene flat seals for cable gland or plug + 2 screw-plugs M20x1.5 + 2 multiway seals 2x6 mm	449 755
Set with 2 reductions M20x1.5 /NPT1/2" + 2 neoprene flat seals for cable gland or plug + 2 screw-plugs M20x1.5	551 782
Set with 1 stopper for unused cable gland M20x1.5 +1 multiway seal 2x6 mm for cable gland + 1 black EPDM gasket for the sensor + 1 mounting instruction sheet	551 775

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In case of special application conditions, please consult for advice.

Subject to alteration.
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