

Batch Controller for panel or wall mounting

8025 Batch controller

7 batch sizes, 2 relay outputs

- Controls 7 batches automatically
- Fast fill and fine control for accuracy
- Shows both flow rate and volume

See flow sensor 8020, 8030, 8070



The remote 8025 batch controller can be connected (with pulse output signal) with Bürkert flowmeters Type 8020, 8030, 8070 or other flow sensor devices which emit a frequency signal.

The remote 8025 is a batch controller with display, available in wall-mounted and panel versions:

The panel version

is made up of an electronics integrated in an open housing with display. The electrical connection is carried out on the terminal blocks of the electronics board

The wall-mounted version

is made up of an electronics board which is integrated in a housing with a cover and display. The electrical connection is made via the terminal blocks of the electronic board via 5 cable glands.

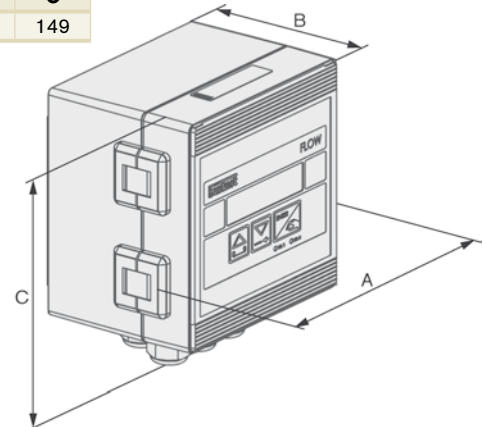
Technical data

Housing material	ABS, PC*
Front panel foil	Polyester
Screws	Stainless Steel
Cable gland	PA
Ambient temperature	-10 °C to +60 °C
Display	15 x 60 mm, 8-digit LCD, alphanumeric, 15 segments, 9 mm high
Voltage supply	12-30 V DC or 115/230 V AC, 50-60 Hz
Current consumption with sensor	(without consumption of 4-20 mA output of the flowmeter) ≤ 90 mA (bei 12 V DC); ≤ 45 mA (bei 36 V DC) ≤ 55 mA (115/230 V AC)
Electrical protection	Reversed polarity of DC protected
Compatibility with Bürkert sensors	Any Bürkert flow sensor with frequency output (8020, 8030, 8030HT, 8041, 8031, 8070, 8071)
Compatibility with other sensors	Any open collector NPN, coil, TTL, CMOS
Electrical connections	Terminal strip (cabinet mounting version) or terminal strip by threaded connections (version wall mounting) Cable glands M20 x 1.5, max. 50 m protected cable with 1.5 mm ² max. cross-section
Recommended cable	0.2 to 1.5 mm ² cross-section, shielded cable, 4... 8 mm diameter (for the cable glands of the wall-mounted version)

Envelope Dimensions [mm] (see datasheet for details)

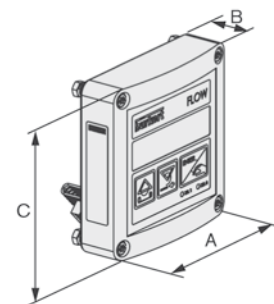
Wall Mount

A	B	C
126	90	149



Panel Mount

A	B	C
88	25	88



Outputs	2 relays, freely programmable, 3A, 230 V AC
Flow input frequency	2.5 Hz up to 700 Hz
Sensor power supply	12-30 or 0-18 V DC, 100 mA max. (24 V DC Version); +15 V DC or +27 V DC, 25 mA max. (115 V AC version)
Ingress protection	IP65, IP65 (front)*

* Panel mount version.


Optionv

- Compact inline mount

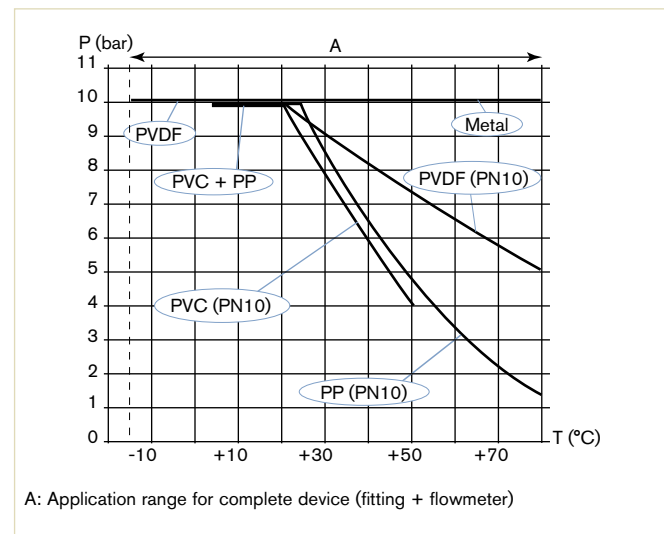
Technical data (continued)

Electrical data	
Power supply (V+)	
Panel- and wall-mounted version	12 - 36 V DC (max tolerance: -5% or +10% at 12 V DC; ±10% at 36 V DC), filtered and regulated, SELV (safety extra low voltage) circuit with a non dangerous energy level,
Wall-mounted version	115/230 V AC 50/60 Hz (see technical specifications 115/230 V AC)
Reversal polarity of DC	Protected
Current consumption with sensor	(without consumption of current output of the flowmeter) ≤ 90 mA (at 12 V DC); ≤ 45 mA (at 36 V DC); ≤ 55 mA (115/230 V AC)
Controller input (from sensor) Frequency range	0.6 Hz to 2.2 kHz, max. voltage: 36 V DC Open collector NPN (with 470 Ω or 2.2 kΩ resistance) or PNP, Coil, TTL, CMOS (with 39 kΩ resistance)
Controller output (to sensor) Voltage supply	- with a 12 - 36 V DC powered controller: ■ 10.5... 34.5 V DC [= (V+) - 1.5 V DC], 140 mA max. ■ 0... 23.5 V DC [= (V+) - 12.5 V DC], 80 mA max. non regulated ■ 5 V DC, 30 mA max. - with a 115/230 V AC powered controller: ■ +27 V DC, 80 mA max. ■ +14.5 V DC [= (V+) - 12.5 V DC] 80 mA max. non regulated ■ 5 V DC, 30 mA max.
Inputs DI (1 to 4)	Switching threshold Von: 5... 36 V DC; Switching threshold Voff max: 2 V DC; Input impedance: 9.4 kΩ; Galvanic insulation, protected against polarity reversals and voltage spike
Outputs	
Transistors (DO1 and DO4)	NPN or PNP (wiring dependent), potential free; function: pulse output (by default for DO1), state (by default for DO4), configurable and parameterizable 0.6 - 2200 Hz, 5 - 36 V DC, 100 mA max., line drop 2.7 V DC at 100 mA duty cycle: ■ > 0.45 if 0.6 < frequency < 300 Hz ■ > 0.4 if 300 < frequency < 1500 Hz ■ < 0.4 if 1500 < frequency < 2200 Hz
Relays (DO2 and DO3)	Galvanic insulation, protected against over-voltage, polarity reversals and short-circuits 2 relays (normally open), parameterizable (by default: DO2 always configured to control the valve, parameterized of 100% of the batch quantity and DO3 configured as alarm), 230 V AC/3 A or 40 V DC/3 A (resistive load), max. cutting power of 750 VA (resistive load)

Technical specifications 115/230 V AC

Supply voltage available inside the device	Wall-mounted version: Voltage supply: 27 V DC regulated, Max. current: 250 mA Integrated protection: fuse 250 mA temporised Power: 6 VA
Standards, directives and approvals	
Protection class (according to EN60529)	IP65 (panel-mounted and wall-mounted version) device wired and cable glands tightened screwed tight IP20 (panel-mounted version, inside the cabinet)
Approvals	CE; UL-Recognized for US and Canada (61010-1 + CAN/CSA-C22 No.61010-1) 

Pressure / temperature chart



Operation and display (common to the various versions)

When mounted in a pipe (compact version) or connected to a flowmeter (remote version) in series with one or two valves, the 8025 batch controller makes it possible to carry out a dosing of one or several quantities of liquids. The unit controls the opening of the valves and measures the quantity of the fluid which flows. The unit also closes the valves when the preset quantity has been delivered.

The electronic component needs a voltage supply of 12 - 36 V DC or 115/230 V AC.

The device is equipped with 4 digital inputs (DI1 up to DI4), 2 transistor outputs (DO1 configured as a pulse output and DO4 configured as state output, by default), 2 relay outputs (DO2 always configured to control the valve and by default parameterize of 100% of the batch quantity and DO3 configured as alarm output by default), two volume or mass totalizers and two batch totalizers.

The second relay output can be used to activate another valve, to initiate alarms or to generate warnings.

The following dosing modes are possible:

- Locally started dosing of free quantity:

the user enters the quantity to be filled and starts the dosing from the keypad.

- Locally started dosing of preset quantity:

the user selects a quantity which has been preset and starts the dosing from the keypad.

- Locally started dosing of free/preset quantity

the user enters the quantity to be filled or selects a quantity which has been preset and starts the dosing from the keypad.

- Dosing controlled by a PLC unit

the user selects a quantity which has been preset and starts the dosing using binary inputs.

- Locally/remote selection of preset quantity and dosing controlled by a PLC unit:

the user selects a quantity which has been preset from the keypad or using binary inputs and starts the dosing using binary inputs.

- Automatic dosing controlled by variation of pulse duration:

the quantity of the dosing is directly proportional to the duration of a pulse.

- Remote dosing determined by Teach-In:

Teach-In of the dosing quantity using binary inputs.

- Local dosing determined by Teach-In:

Teach-In of the dosing quantity from the keypads.

The device is calibrated by means of the K-factor which is either entered or determined via the Teach-In functions.

User adjustments, such as measuring range, engineering units, pulse output, etc. are carried out via the device operators interface.

The operation is specified according to five levels:

Indication in operating mode/ display	Parameter definition	Test	Information	History
<ul style="list-style-type: none"> ▪ dosing amount ▪ dosing mode ▪ main quantity totalizer ▪ daily quantity totalizer with reset function ▪ main batch totalizer ▪ daily batch totalizer with reset function 	<ul style="list-style-type: none"> ▪ language ▪ engineering units ▪ K-factor/Teach-In function ▪ selection of dosing mode ▪ over run correction ▪ alarm ▪ outputs configuration ▪ reset both quantity/batch totalizers (main and daily) ▪ Brightness of the display (backlight) 	<ul style="list-style-type: none"> ▪ input test ▪ output test ▪ frequency test ▪ warning and fault messages generating ▪ configuration mode 	<ul style="list-style-type: none"> ▪ Display of error, alarm and/or warning messages 	<ul style="list-style-type: none"> ▪ Display of the 10 latest batches

Ordering Chart

Description	Totalizers	Relays	Connection	Item no.	
				12 - 30 V DC	115 - 230 V AC
Wall mount	2	2 x 3 A	5 x PG 13.5 cable gland	433 740	433 741
Panel mount (CSA)	2	2 x 3 A	Terminal strip	419 536	-

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