

Type 8763

Pressure controller for precise time-pressure dosing

Druckregler für präzise Druck-Zeit-Dosierung

Régulateur de pression pour un dosage pression-temps précis



Quickstart

Table of contents

1	Quickstart	2
2	Intended use	3
3	Basic safety instructions.....	4
4	General information	5
5	Product description.....	5
6	Technical data.....	6
7	Installation.....	8
8	Device operation	11
9	Transport, storage, disposal	12

1 QUICKSTART

The Quickstart describe in a short form the importantly information and instructions for use of the device.

Important safety information.

- ▶ Read the Quickstart carefully and follow the safety instructions.
- ▶ Keep Quickstart in a location where they are available to every user.
- ▶ The liability and warranty for the device are void if the Quickstart are not followed.

A detailed description of the device can be found in the operating instructions for Type 8763.



The operating instructions can be found on the Internet at www.burkert.com

1.1 Symbols

- ▶ Designates instructions for risk prevention.
- Designates a procedure, which you must carry out.



DANGER

Immediate danger! Serious or fatal injuries.



WARNING

Possible danger! Serious or fatal injuries.



CAUTION

Danger! Moderate or minor injuries.

NOTE

Warns of damage to property.



Important tips and recommendations.



Refers to information in these operating instructions or in other documentation.

1.2 Definition of terms

Term	in these instructions representative for
Device	Pressure controller Type 8763

2 INTENDED USE

The pressure controller Type 8763 is designed for time-pressure dosing of very low volumes.

- ▶ Use the device only as intended. Non-intended use of the device may be dangerous to people, nearby equipment and the environment.
- ▶ Do not use Type 8763 outdoors.
- ▶ Prerequisites for safe and trouble-free operation are correct transportation, correct storage, installation, start-up, operation and maintenance.
- ▶ To use the device, observe the permitted data, operating conditions and application conditions. These specifications can be found in the contract documents, the operating instructions and on the type label.
- ▶ Use the device only in conjunction with third-party devices and components recommended or approved by Bürkert. The pressure controller has been tested with the 772489 (order number 772426) power supply unit and operation with this power supply unit is recommended.
- ▶ Use the device only when it is in perfect condition.

3 BASIC SAFETY INSTRUCTIONS

These safety instructions do not make allowance for any contingencies and events, which may arise during assembly, operation and maintenance.



Risk of injury from high pressure and escaping medium.

- ▶ Before working on the system or device, switch off the pressure and vent or empty the lines.

Risk of injury due to electric shock.

- ▶ Before working on the device or system, switch off the power supply and secure to prevent reactivation.
- ▶ Observe the applicable accident prevention and safety regulations for electrical devices.

General hazardous situations.

To prevent injuries, observe the following:

- ▶ Use the device only when it is in perfect condition and in accordance with the operating instructions.
- ▶ Do not make any changes to the device and do not subject it to mechanical stress.
- ▶ Secure device or system to prevent unintentional activation.
- ▶ Do not feed any aggressive or combustible media into the media connections of the system.

- ▶ Do not feed any liquids into the media connections.
- ▶ Do not cover the ventilation slots of the body.
- ▶ Only trained technicians carry out installation and maintenance work.
- ▶ Install the device according to the regulations applicable in the country.
- ▶ After an interruption in the power supply, ensure that the process is restarted in a controlled manner.
- ▶ Observe the general rules of technology.

NOTE

Electrostatically sensitive components and assemblies.

The device contains electronic components that are susceptible to the effects of electrostatic discharging (ESD). Components that come into contact with electrostatically charged persons or objects are at risk. In the worst case scenario, these components are destroyed immediately or fail after start-up.

- ▶ Meet the requirements specified by EN 61340-5-1 to minimize or avoid the possibility of damage caused by sudden electrostatic discharge.
- ▶ Do not touch electronic components when the supply voltage is connected.

4 GENERAL INFORMATION

4.1 Warranty

A precondition for the warranty is that the device is used as intended in consideration of the specified operating conditions.

4.2 Information on the Internet

Operating instructions and data sheets for the Bürkert products can be found on the Internet at: www.burkert.com

5 PRODUCT DESCRIPTION

5.1 Structure and description

The pressure controller is designed for time-pressure dosing of very low volumes. The device can be operated either using bÜS or CANopen or with restrictions using an analogue control signal.

The pressure controller features an integrated pressure sensor that measures the actual pressure and transmits it with an accuracy of ≤ 0.25 % FS.

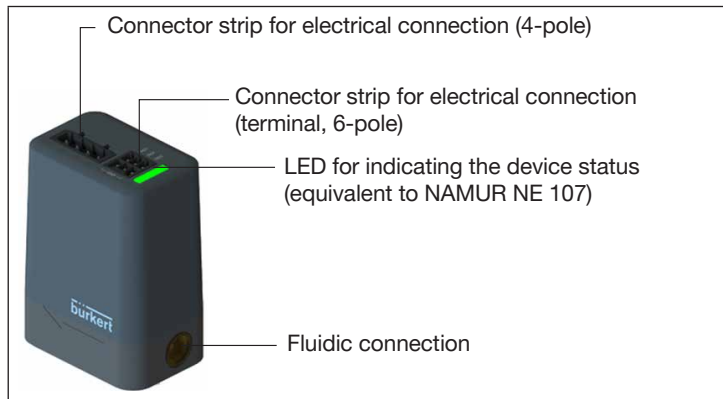


Fig. 1: Structure of the pressure controller, digital variant

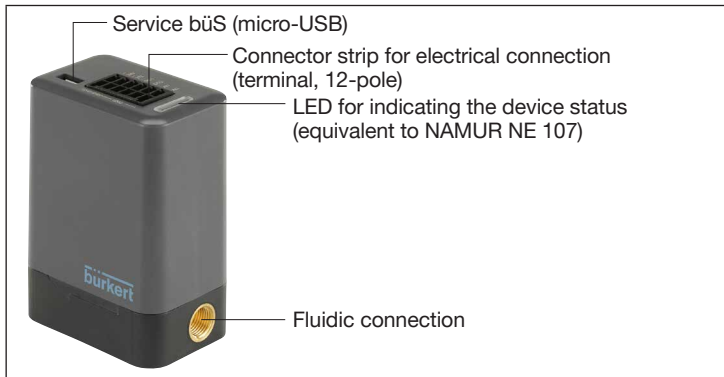


Fig. 2: Structure of the pressure controller, analogue variant



A detailed product description of the pressure controller can be found in the operating instructions on the Internet at: www.burkert.com

6 TECHNICAL DATA

6.1 Conformity

The device conforms to the EU directives as per the EU Declaration of Conformity (if applicable).

6.2 Standards

The applied standards, which are used to demonstrate conformity with the directives, are listed in the EU type examination certificate and/or the EU Declaration of Conformity (if applicable).

6.3 Operating conditions



WARNING

Risk of injury due to malfunction if used outdoors.

- ▶ Do not use the device outdoors and keep it away from heat sources that could cause the permissible temperature range to be exceeded.

Ambient temperature	+15...+40 °C
Medium temperature	+15...+40 °C
Permissible air humidity	90 % non-condensing

Degree of protection	IP20
Fluids	Neutral gases (air, nitrogen, argon, etc.)

6.4 Mechanical data

Body material	PPS, brass
Housing lid	PC
Seal material	FKM, PCTFE (only DN 0.1), deaeration side FFKM

6.5 Fluidic data

Input	G1/8
Output controlled	UNF1/4-28
Permissible primary pressure	3 bar (43.5 psi)
Flange connection	Flange drawing of the flange variant see datasheet

6.6 Electrical data

Operating voltage	18...35 V DC
Power consumption	<6 W (with connected additional consumers <12 W)

6.7 Type label

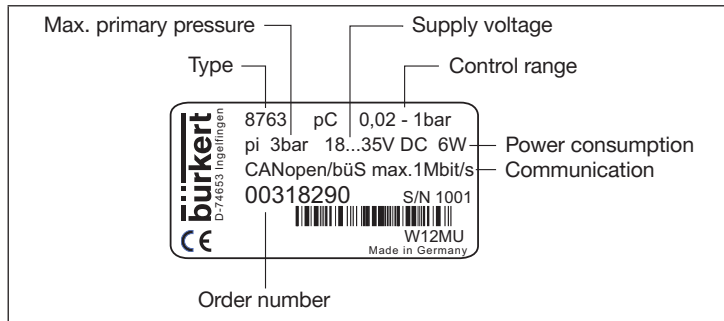


Fig. 3: Description of the type label, example

7 INSTALLATION



WARNING

Risk of injury due to improper installation.

- ▶ Installation may be carried out by authorised technicians only and with the appropriate tools.

Risk of injury due to unintentional activation of the system and uncontrolled restart.

- ▶ Secure the system against unintentional activation.
- ▶ Following installation, ensure a controlled restart.

NOTE

Electrostatic discharges at the connector contacts will damage the device.

- ▶ Do not touch the connector contacts.

7.1 Procedure in sequence

- Create the fluidic connections to the device.
- Create the electrical (currentless) connections to the device.
- Switch on the electrical voltage supply.
- Switch on the primary pressure.

7.2 Fluidic connection

- Connect a G1/8 working port with an O-ring at the pressure input.
- Connect a UNF1/4-28 working port with ≥ 1.5 mm internal diameter to the pressure output.



DANGER

Risk of injury from outgassing.

If aggressive fluid media are pressurized, the medium in question must be in the liquid phase at the applied temperature and must not be permitted to evaporate.

- ▶ When the system is at a standstill, ensure fluidic separation of the dosing medium from the pressure controller by means of a shut-off valve.
- ▶ Ensure adequate ventilation.



To dissipate outgassing of the pressurised medium, a thread can be cut into the venting point as an option (UNF-10-32).

7.3 Electrical connection

7.3.1 Digital variant

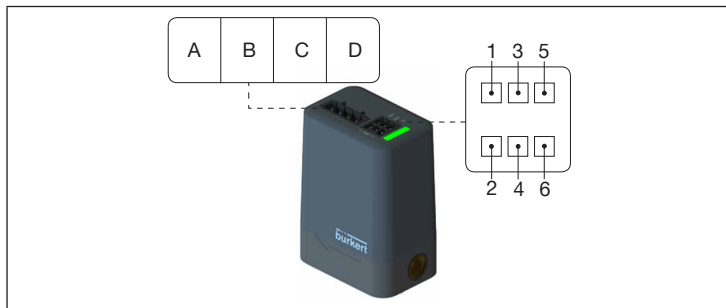


Fig. 4: Electrical connection, digital variant

Connector strip for supply and büS:

Pin	Assignment
A	GND
B	CAN low
C	CAN high
D	Input voltage (18...35 V DC)

Tab. 1: Digital variant, connector strip 4-pole

Connector strip for the auxiliary functions:

Pin	Assignment
1	DO1 output voltage (12 V DC)
2	GND
3	Output voltage 12 V DC sensor supply
4	GND
5	AI1 (external sensor input)
6	GND

Tab. 2: Digital variant, connector strip 6-pole

7.3.2 Analogue variant

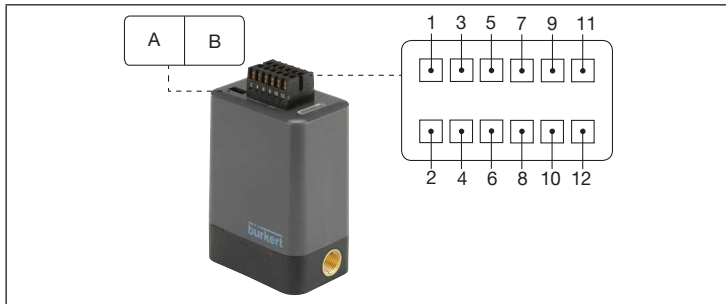


Fig. 5: Electrical connection, analogue variant

Service büS (micro-USB)

	Pin	Assignment
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> A B </div>	A	CAN high
	B	CAN low

Tab. 3: Analogue variant, service büS

Connector strip, 12-pole for supply and auxiliary functions:

Pin	Assignment
1	Input voltage + (18...35 V DC)
2	Input voltage -
3	DO2 (digital output)
4	Ground DO2
5	DO1 (switchable, 12 V)
6	GND
7	Output voltage 12 V DC sensor supply
8	GND
9	AI1
10	GND
11	AI2
12	GND

Tab. 4: Analogue variant, connector strip 12-pole

7.4 Disassembly



DANGER

Risk of injury from high pressure and escaping medium.

- ▶ Before working on the device or system, switch off the pressure. Vent or empty the lines.

- Switch off primary pressure.
- Vent the device by means of an exhaust valve (e.g. by changing the set-point value to 0 bar or manually switching the exhaust valve in the Bürkert Communicator).
- Switch off electrical voltage supply.
- Hold the device by the housing lid and disconnect electrical connection.
- Disconnect fluidic connection.
- Disassemble the device.

8 DEVICE OPERATION

8.1 Operating the pressure controller using the Bürkert Communicator

You can use the Bürkert Communicator software to configure the device on the PC.



The Bürkert Communicator PC software can be downloaded free of charge from the Bürkert website. In addition to the software, the USB-büS-Interface set, available as an accessory, is required.



The operating instructions for the basic functions of the Bürkert Communicator software can be found on the Bürkert website: www.burkert.com → Type 8920

8.2 Status LED

The LED for indicating the device status changes colour and status in accordance with NAMUR NE 107.

Status LED in line with NE 107, issue 2006-06-12		
Colour	Colour code	Description
red	5	Failure, error or fault
orange	4	Function check
yellow	3	Outside the specification
blue	2	Maintenance required
green	1	Diagnostics active
white	0	Diagnostics inactive



A detailed description of the possible settings can be found in the operating instructions on the Bürkert homepage at www.burkert.com

9 TRANSPORT, STORAGE, DISPOSAL

NOTE

Damage in transit due to inadequately protected devices.

- ▶ Protect the device against moisture and dirt in shock-resistant packaging during transportation.
- ▶ Observe permitted storage temperature.

Incorrect storage may damage the device.

- ▶ Store the device in a dry and dust-free location.
- ▶ Storage temperature: 0...+50 °C.

Damage to the environment caused by device parts contaminated with media.

- ▶ Dispose of the device and packaging in an environmentally friendly manner.
- ▶ Observe applicable disposal and environmental regulations.

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Operating Instructions 2109/02_EU-ML_00810779 / Original DE

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