bürkert
FLUID CONTROL SYSTEMS

Type 8605

Software description for digital control electronics
Softwarebeschreibung für digitale Ansteuerelektronik
Description du logiciel pour régulateur électronique numérique

MAN 1000408240 EN Version: - Status: RL (released | freigegeben) printed: 28.11.2019

Operating Instructions - Software
Bedienungsanleitung - Software
Manuel d'utilisation - Logiciel

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We reserve the right to make technical changes without notice.
Technische Änderungen vorbehalten.
Sous réserve de modifications techniques.

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Operating Instructions 1910/00_DE_00815325 / Original DE

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1 ABOUT THESE INSTRUCTIONS

These instructions provide information about the software functions of the device. These instructions are intended for personnel responsible for the planning, installation, setup and maintenance of device networks.

Important safety information.

Please refer to the operating instructions for safety and usage information related to the device.

▸ Carefully read these instructions.

1.1 Symbols


Indicates important additional information, tips and recommendations.


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

→ Designates a procedure which you must carry out.


Designates a result.

MENUE Symbol for software interface texts.

1.2 Contact addresses

Germany

Bürkert Fluid Control Systems
Sales Centre
Christian-Bürkert-Str. 13-17
D-74653 Ingelfingen
Tel. + 49 (0) 7940 - 10-91 111
Fax + 49 (0) 7940 - 10-91 448
E-mail: info@burkert.com

International

The contact addresses can be found on the back pages of the printed operating instructions.

They are also available on the internet at: www.burkert.com

1.3 Warranty

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

1.4 Information on the Internet

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

www.burkert.com

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2 INTENDED USE

The software is designed for the configuration of devices supporting communication functions.

- When using the device, observe the authorised data, operating conditions and deployment conditions for the relevant devices or products specified in the contract documents and in the operating instructions.
- The software must only be used in conjunction with third-party devices and components recommended or approved by Bürkert.
- Correct installation and careful operation and maintenance are essential to ensure safe and trouble-free operation.

3 PRODUCT DESCRIPTION

This section contains a description and explanation of the software's function.

3.1 Description and function

The software provides functionality for integrating a solenoid valve into a Bürkert büS network.

The software also has the following optional functions implemented:

- Functions for reading analogue and digital signals (e.g. for integrating pressure transmitters from third-party manufacturers),
- Simple time control (similar to Type 1078),
- Simple two-point process control.

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4 OPERATION

This chapter describes the software's functions and the configuration of the device.

4.1 Operating the device using 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

4.2 Bürkert Communicator user interface

View of the configuration area:

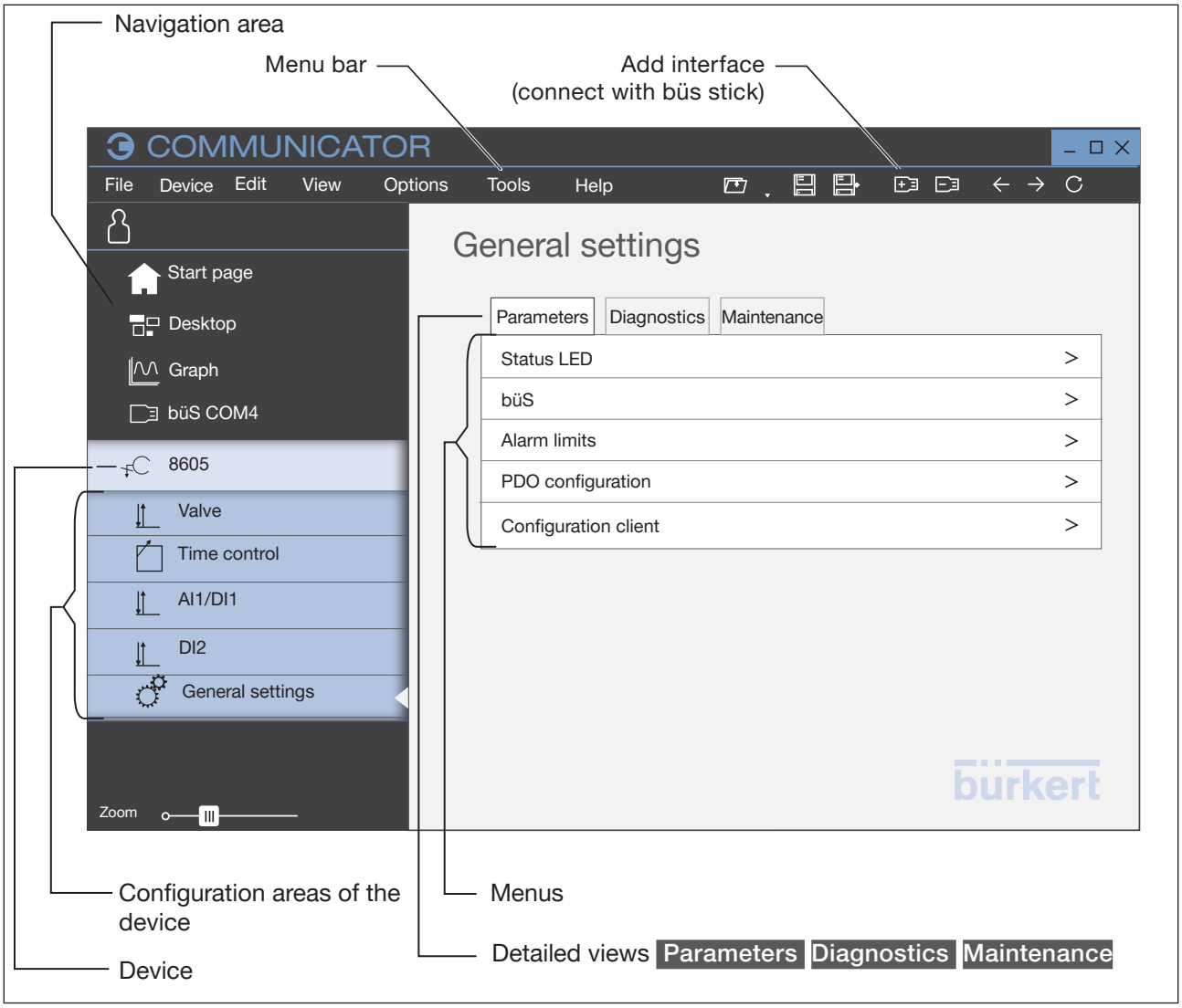

Figure 1: Bürkert Communicator user interface

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View of the application area:

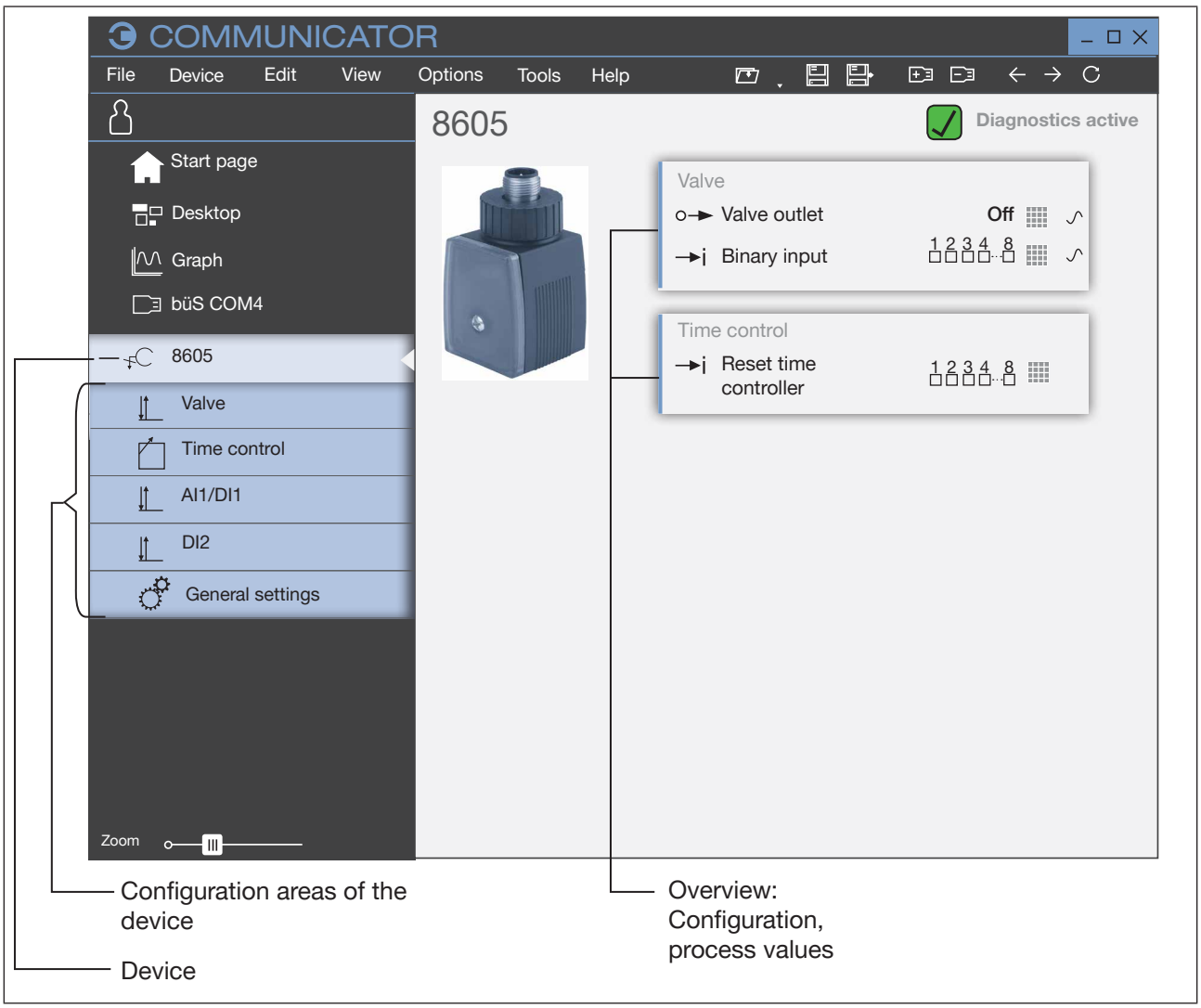

Figure 2: View of the application area

4.3 Establish the connection between device and Bürkert Communicator

→ Install the Bürkert Communicator software on the PC.

→ Set the terminating resistor (on the büS stick or external terminating resistor with 120 Ohm).

→ Use the büS stick to establish the connection between device and PC.

→ Open Bürkert Communicator.

→ In the menu bar, click the icon for **Add interface**.

→ Select the **büS stick**. **Complete the installation**.

✔ A connection between the device and Bürkert Communicator is established. The device is displayed in the navigation area.

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4.4 Configuration of the device

4.4.1 Menus in the “Valve” configuration area

Detailed view “Parameters”

Level 1	Notes
Configuration	A wizard guides you through the configuration. The parameters specific to the valve are configured here.
Coil current	A wizard guides you through the configuration.

Detailed view “Diagnostics”

Level 1	Level 2	Notes
General valve settings	Initial valve position	Indication of the valve position
	Safety position	
	Hold power [W]	
	Switch power[W]	
	Inversion of valve control	
Power reduction	PWM frequency	Display of values configured in Parameters detailed view
	Power reduction to [%]	
	Time of switch-on pulse [ms]	
	Time between switch-on pulses [ms]	
Switching cycle counter	Counter limit	Only visible if the switching cycle counter is enabled in the detailed view “Parameters”
	Current	
Display settings	Valve status LED	Display of values configured in Parameters detailed view
	Status LED	

Detailed view “Maintenance”

The detailed view “Maintenance” is only visible if the switching cycle counter is enabled in the detailed view “Parameters”

Level 1	Level 2	Notes
Switching cycle counter	Resetting switching cycle counter	Resetting switching cycle counter

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4.5 Other settings

4.5.1 Menus in the “Time control” configuration area

The “Time control” configuration area is only visible if “Time control” is selected as the valve control type in the “Parameters” detailed view

Detailed view “Parameters”

Level 1	Level 2	Notes
Configuration		A wizard guides you through the configuration.
Setting the value source		Select value source for timer reset
Overview of configuration	Delay	
	Time 1	
	Time 2	
	Setting for timer reset	
	Automatic start of the time control after boot-up	

Detailed view “Diagnostics”

Level 1	Notes
Valve control value of the time control	
Time control status	
Time remaining until next valve switching	

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4.5.2 Menus in the “AI1/DI1” configuration area

Detailed view “Parameters”

Level 1	Notes
Setting of the type of input signal	A wizard guides you through the configuration. Possible settings: Analogue, digital or no type selected
Inversion of digital input signal	Only appears with digital
Type of analogue signal	Only appears with analogue
Setting the unit	
Value at 0mA	
Value at 20mA	
Filter response time	

Detailed view “Diagnostics”

Level 1	Notes
Type of input signal	Display of input signal type

Detailed view “Maintenance”

Detailed view “Maintenance”: Only visible if selected input signal type is “Analogue”

Level 1	Level 2	Notes
Calibration	Manual calibration of the input	A wizard guides you through the configuration.

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4.5.3 Menus in the “DI2” configuration area

Detailed view “Parameters”

Level 1	Notes
Setting of the type of input signal	A wizard guides you through the configuration. Possible settings: Frequency, digital or no type selected
Filter response time	Input field, only for frequency
K-factor	Input field, only for frequency
Inversion of digital input signal	Only appears with digital

Detailed view “Diagnostics”

Level 1	Notes
Type of input signal	Display of selected input signal type

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4.5.4 Menus in the “General settings” configuration area

Detailed view “Parameters”

Level 1	Level 2	Level 3	Notes
Status LED	Operation mode		Drop-down list: Choice between NAMUR mode, valve mode, warnings, fixed colour and LED off
	Valve open		Choice of colour to indicate position
	Valve closed		Choice of colour to indicate position
	Colour		Choice of colour to indicate position
büS	Displayed name		Enter a device name, can be changed without affecting communication
	Location		Enter the device installation location, displayed with the device name
	Description		Enter a user-defined description text, displayed e.g. in Tooltips
	Extended	Unique device name	Used for partner assignments and should therefore not be changed
		Baudrate	Enter the baud rate used
		Fixed CANopen address	Changes are only applied after the restart. If the specified address is already in use, the device switches to a different address.
		CANopen address	Enter the address/Node ID. If the specified address is already in use, the device switches to a different address.
		Bus operation mode	Operation mode of the büS interface: büS or CANopen compatibility mode, or individual device
		Deallocation delay	The time from the loss of a partner to the deletion of his configuration, input is possible but must generally not be changed
Alarm limits	Supply voltage	Error above	-1.0 V
		Error below	-1.0 V
PDO configuration	PDO 1		Enter the transmission times
	PDO 3		
	PDO 4		
	Reset to default values		
Configuration client	Operation mode		Defines whether the configuration is to be managed by a device. If set to automatic, will wait for a provider and then switch to Active
	Change operation mode		Drop-down list: Choice of active, inactive and automatic activation

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Detailed view “Diagnostics”

Level 1	Level 2	Level 3	Notes
Device status	Operating duration		Display current values
	Supply voltage		
	Voltage drops		Number of voltage drops since last reboot
	Min./max. values	Max. Supply voltage	Display supply voltage
		Min. Supply voltage	Display supply voltage
	Device start counter		Display current values
	Removable storage medium status		Display of the status
büS status	Receive error		Current error counter value
	Receive error max		Maximum error counter value since the last device restart
	Send error		Current error counter value
	Send error max.		Maximum error counter value since the last device restart
	Reset error counter		Resets the maximum value of the error counter
	CANopen status		Display of the status
Configuration client	Removable storage medium status		Display of the status
	Status		Display of the status
	Number of reconfigurations		Shows number of reconfigurations

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Detailed view “Maintenance”

Level 1	Level 2	Level 3	Notes
Device information	Displayed name		Only displayed if a name was entered in the menu of the same name for the Parameters detailed view
	Identification number		
	Serial number		
	Software ident. number		
	Software version		
	büS version		
	Hardware version		
	Product type		
	Manufacturing date		
	eds version		
	Device driver	Driver version	
		Firmware group	
		DLL version	
		Place of origin	
Reset device	Reboot		
	Factory reset		

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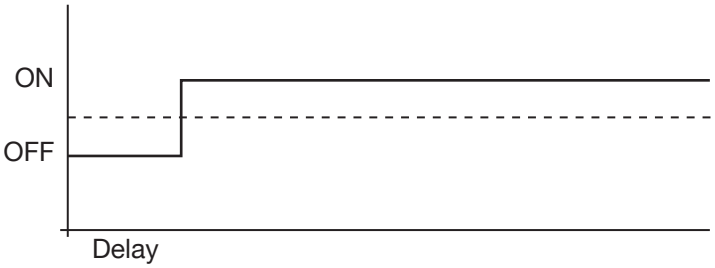
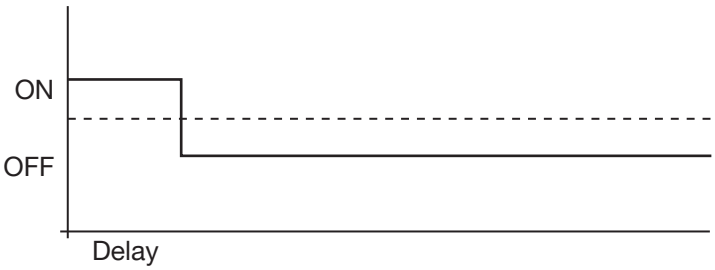
5 TIME CONTROL CONFIGURATION

The time control can be configured after a device reboot.

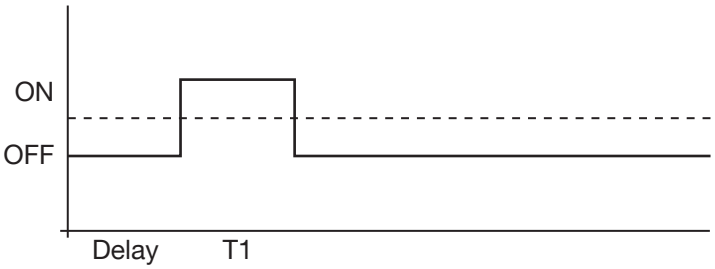
Configuration examples:



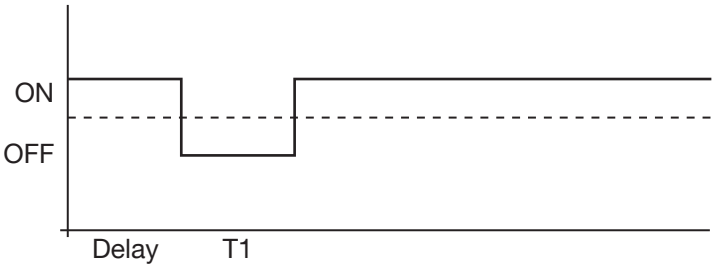
Initial Valve State	OFF
Delay	> 0 ms
T1	= 0 ms
T2	= 0 ms



Initial Valve State	ON
Delay	> 0 ms
T1	= 0 ms
T2	= 0 ms



Initial Valve State	OFF
Delay	> 0 ms
T1	> 0 ms
T2	= 0 ms



Initial Valve State	ON
Delay	> 0 ms
T1	> 0 ms
T2	= 0 ms

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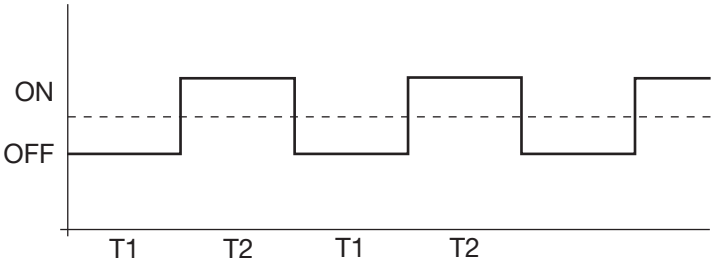
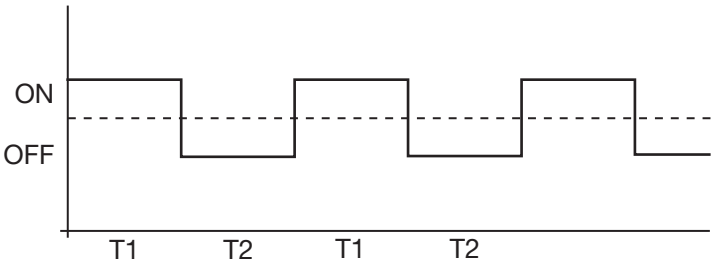
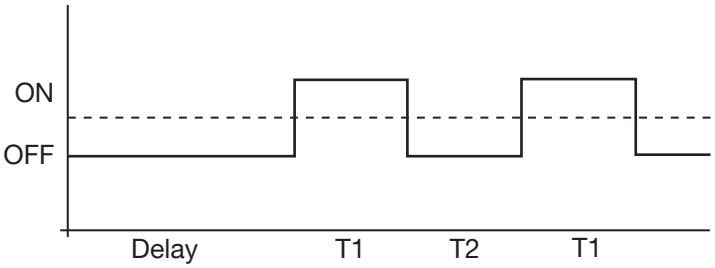


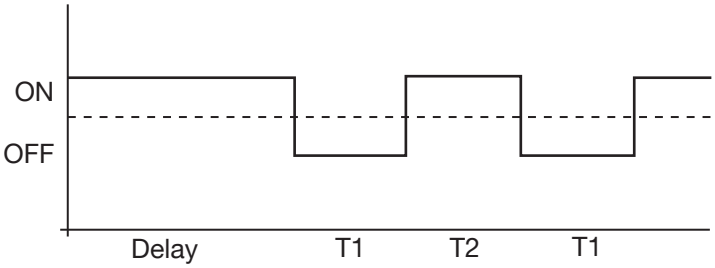
Initial Valve State	OFF
Delay	= 0 ms
T1	> 0 ms
T2	> 0 ms



Initial Valve State	ON
Delay	= 0 ms
T1	> 0 ms
T2	> 0 ms



Initial Valve State	OFF
Delay	> 0 ms
T1	> 0 ms
T2	> 0 ms



Initial Valve State	ON
Delay	> 0 ms
T1	> 0 ms
T2	> 0 ms

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