









Electrical Rotary Actuator - On/Off and control

- Direct mounting on ball & butterfly valves
- Manual override standard
- Adjustable limit switches
- Robust housing

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 2651 2/2 or 3/2 way Ball Valve, 2-Piece	▶
	Type 2654 2/2-way ball valve 3-piece	▶
	Type 2657 Ball Valve, manually-operated	▶
	Type 2671 Butterfly valve	▶
	Type 2674 Plastic butterfly valve	▶
	Type TKU001 2/2 way compact flange ball valve	▶

Type description

The electrical rotary actuator type 3003 PS is a compact and powerful actuator system, which provides a long lifetime.

Materials and components have been chosen for maintenance-free operation even in aggressive environments and ensure low thermal loading on the actuator.

The robust housing protects the actuator against environmental influences and impacts. Moreover the modular design offers to add many additional features such as heating resistors and potentiometers.

Table of contents

1. General technical data	3
1.1. General data	3
1.2. Electrical data	4
2. Materials	4
2.1. Chemical Resistance Chart – Bürkert resistApp.....	4
3. Dimensions	5
4. Device/Process connections	6
4.1. Electrical connections.....	6
5. Product design and assembly	7
5.1. Product assembly	7
6. Ordering information	7
6.1. Bürkert eShop – Easy ordering and quick delivery.....	7
6.2. Bürkert product filter.....	7
6.3. Ordering chart.....	8
On/Off actuator	8
Control version with analogue input and output signal	8
6.4. Ordering chart accessories.....	8
Actuator accessories	8
Conversion sleeves.....	9

1. General technical data

1.1. General data

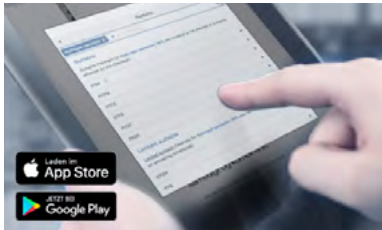
Product properties	
Dimensions	Detailed information can be found in chapter "3. Dimensions" on page 5.
Material	
Cover	Polycarbonate (Lexan 943A)
Body	Aluminium silicon alloy (AlSi12)
Weight	
On/Off version (without accessories)	2.5 kg
Control version (without accessories)	4 kg
Drive	Double square 17 mm
Optical position indicator	Standard
Performance data	
Torque	
On/Off actuator	25 Nm, 50 Nm
Control version	25 Nm, 45 Nm
Rotation angle	90° (adjustable)
Rotation time (90 %)	5...80 sec Detailed information can be found in chapter "6. Ordering information" on page 7.
Options	Heating resistor (except at 400 V 3~) Potentiometer (100/200/500/1000/2000 Ohm)
Electrical data	
Operating voltage	
Synchronous motor	24 V AC / 115 V AC 1~ / 230 V AC 1~ / 400 V 3~
DC motor	2.1 kg
Limit switches	4 adjustable (2 for the motor and 2 for the position feedback), max. 250 V AC 1 A inductive load 3 A ohmic load
Power consumption	8 W...55 W Detailed information can be found in chapter "6. Ordering information" on page 7.
Over-voltage category	II
Control drive with analogue input signal and output signal	
Input	0/4...20 mA / 0/2...V
Output	-0...10 V
Motor protection	Thermoswitch Multiple fuse for on/off version with 24 V DC
Duty cycle	Acc to IEC60034-1.8 S2 short-term operation (on/off) 20 min S3/S4 control operation 1200 cycles/hour - 25% ED at 25° C
Process/Port connection & communication	
Electrical connection	Cable glands M20 x 1.5
Environment and installation	
Installation position	Do not mount the actuator upside down, max. installation angle: 90°
Ambient temperature	
Open/Close Application	-25 °C...+70 °C (S2)
Control version	-20 °C...+60 °C (S4)
Degree of protection	IP65 acc. to EN 60529

1.2. Electrical data

Actuator		Power supply	Voltage				
Version	Torque		230 V AC 1~	115 V AC 1~	24 V AC 1~	400 V 3~	24 V DC
On/Off version	25 Nm	Frequency [Hz]	50 / 60	50 / 60	50 / 60	–	–
		Operation time [s]	17 / 14	17 / 14	17 / 14	–	9
		Nominal current [A]	0.08	0.15	0.8	–	0.6
		Max. current [A]	0.09	0.18	0.96	–	1.2
		Power consumption [W]	17 / 23	18 / 20	18 / 23	–	15
	50 Nm (fast rotation)	Frequency [Hz]	50 / 60	50 / 60	50 / 60	50 / 60	–
		Operation time [s]	6 / 5	6 / 5	6 / 5	6 / 5	–
		Nominal current [A]	0.17	0.34	1.6	0.08	–
		Max. current [A]	0.2	0.41	1.9	0.13	–
	50 Nm (medium rotation)	Frequency [Hz]	50 / 60	50 / 60	50 / 60	–	–
		Operation time [s]	33 / 28	33 / 28	33 / 28	–	16
		Nominal current [A]	0.05	0.13	0.6	–	0.6
		Max. current [A]	0.06	0.15	0.73	–	1.2
	50 Nm (slow rotation))	Frequency [Hz]	50 / 60	50 / 60	50 / 60	–	–
		Operation time [s]	80 / 67	80 / 67	80 / 67	–	–
		Nominal current [A]	0.03	0.07	0.33	–	–
Max. current [A]		0.04	0.08	0.4	–	–	
Control version	25 Nm	Frequency [Hz]	50 / 60	50 / 60	50 / 60	–	–
		Operation time [s]	17 / 14	17 / 14	17 / 14	–	–
		Nominal current [A]	0.05	0.13	0.6	–	–
		Max. current [A]	0.06	0.15	0.73	–	–
		Power consumption [W]	12	15	15	–	–
	45 Nm	Frequency [Hz]	50 / 60	50 / 60	50 / 60	–	–
		Operation time [s]	17 / 14	17 / 14	17 / 14	–	–
		Nominal current [A]	0.1	0.2	1	–	–
		Max. current [A]	0.12	0.24	1.2	–	–
		Power consumption [W]	22	22	22	–	–

2. Materials

2.1. Chemical Resistance Chart – Bürkert resistApp



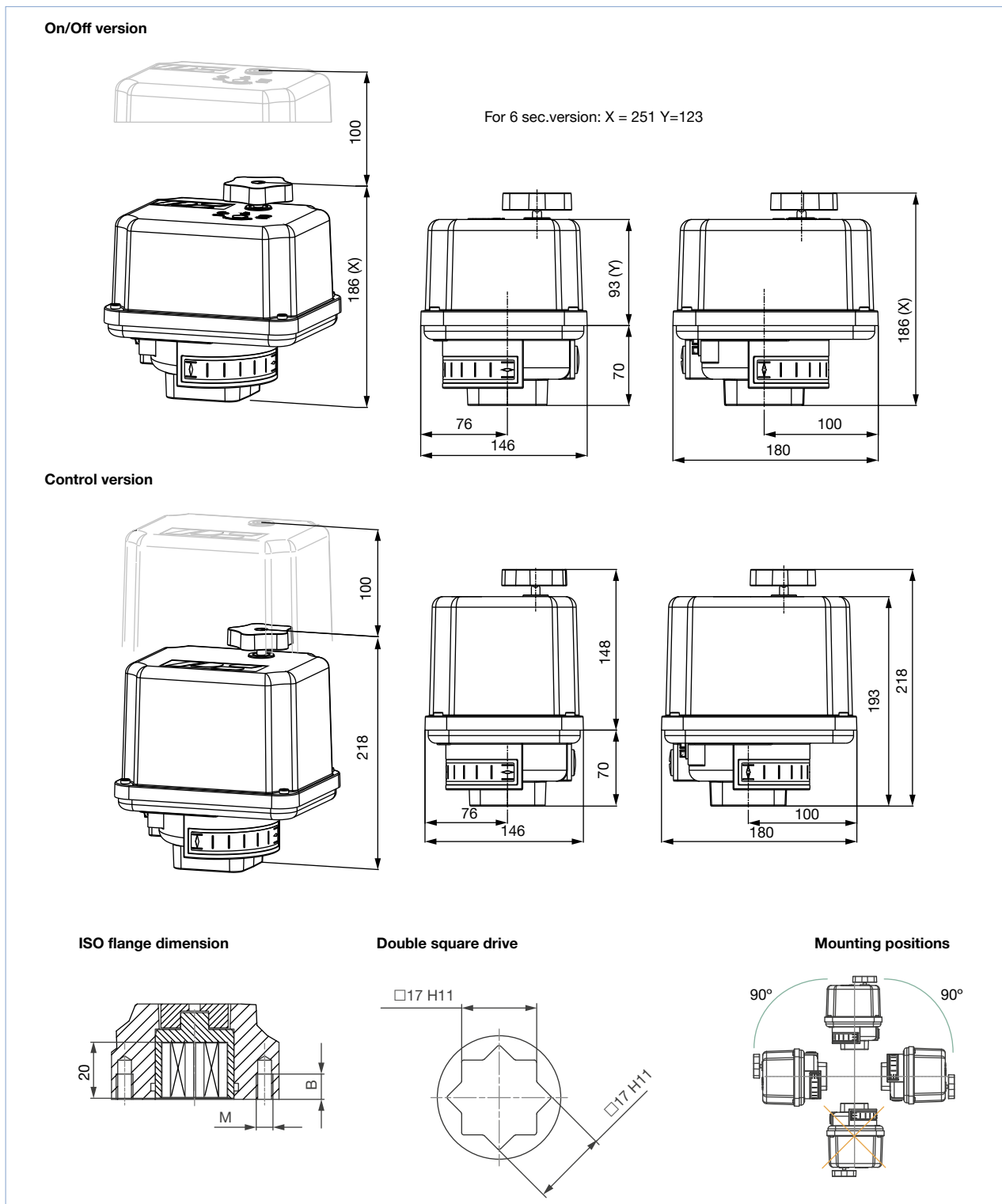
Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start Chemical Resistance Check](#)

3. Dimensions

Note:
Dimensions in mm



ISO5211	F04/F07	F05/F07
M	M5/M8	M6/M8
B	8/12 mm	9/12 mm

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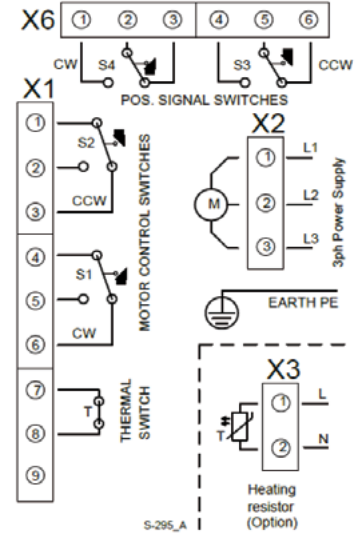
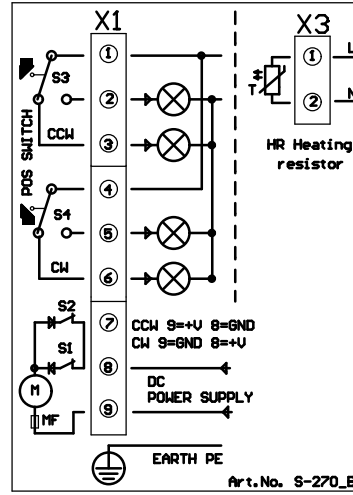
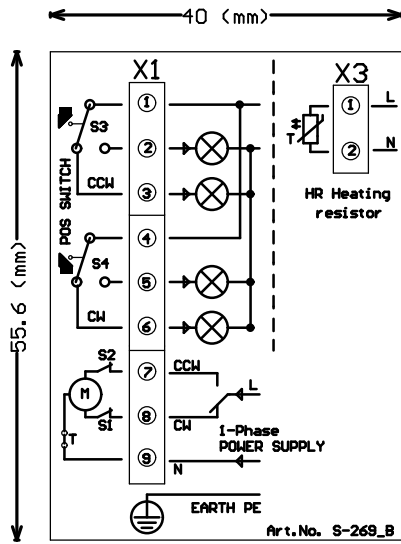
4. Device/Process connections

4.1. Electrical connections

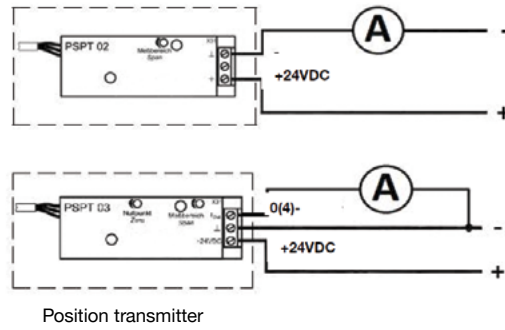
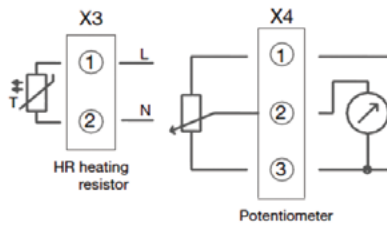
230 V, 115 V, 24 V
AC supply

24 V
DC supply

400 V AC

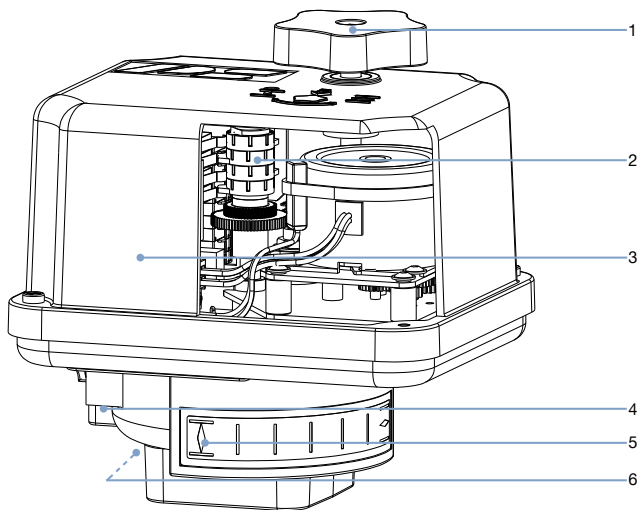


Options



5. Product design and assembly


5.1. Product assembly



No.	Element
1	Manual override
2	Preset switching cams
3	Cover in UV resistant polycarbonate - IP65
4	Gear housing in aluminium
5	Visual position indicator
6	Stop screw (adjustable from the outside)

6. Ordering information

6.1. Bürkert eShop – Easy ordering and quick delivery




Bürkert eShop – Easy ordering and fast delivery

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6.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

6.3. Ordering chart

On/Off actuator

Torque ^{1.)}	Rotation time ^{2.)}			Flange	Double Square	Article no. 230 V AC 1~	Article no. 115 V AC 1~	Article no. 24 V AC 1~	Article no. 400 V 3~	Article no. 24 V DC
	AC		DC							
	50 Hz	60 Hz								
[Nm]	[s]	[s]	[s]	[s]	[mm]					
25	17	14	–	F05/07	17	329988	329989	329990	–	–
			–	F04/07		329991	329992	329993	–	–
	–	–	9	F05/07		–	–	–	–	329994
	–	–	–	F04/07		–	–	–	–	329995
	–	–	–	–		–	–	–	–	–
50	6	5	–	F05/07	329996	329997	329998	329999	–	
			–	–	16	–	–	–	–	–
	33	28	–	–	330001	330002	330003	–	–	
	80	67	–	–	330004	330005	330006	–	–	

1.) For the actuator choice, we recommend a safety torque equal to 1.5 times of the valve maximal torque.

2.) Other rotation angles are available on request.

Control version with analogue input and output signal

Torque ^{1.)}	Rotation time ^{2.)}			Flange	Double Square	Article no. 230 V AC 1~	Article no. 115 V AC 1~	Article no. 24 V AC 1~	Article no. 400 V 3~	Article no. 24 V DC
	AC		DC							
	50 Hz	60 Hz								
[Nm]	[s]	[s]	[s]	[s]	[mm]					
25	17	14	–	F05/07	17	330007	330008	330010	–	–
			–	F04/07		330011	330012	330013	–	–
45	17	14	–	F05/07	330014	330015	330016	–	–	
			–	F04/07	330017	330018	330019	–	–	

1.) For the actuator choice, we recommend a safety torque equal to 1.5 times of the valve maximal torque.

2.) Other rotation angles are available on request.

Other versions on request

Voltage













Other supply voltages

6.4. Ordering chart accessories

Actuator accessories

Description	Article no.
Heating resistor (for 230 V AC and 115 V AC actuators)	774106
Heating resistor (for 24 V AC/DC actuators)	774210
Position feedback 2-wire technology	774107
Position feedback 3-wire technology	774108
Potentiometer 100 Ω (for On/Off version)	774109
Potentiometer 200 Ω (for On/Off version)	774110
Potentiometer 500 Ω (for On/Off version)	774111
Potentiometer 1000 Ω (for On/Off version)	774112
Potentiometer 2000 Ω (for On/Off version)	774113

Conversion sleeves

Description	Article no.
Conversion sleeve star/square 14/9 mm	665288 
Conversion sleeve star/square 14/11 mm	665289 
Conversion sleeve square/square 17/14 mm	665290 
Conversion sleeve star/square 17/14 mm	773348 
Conversion sleeve star/square 17/11 mm	773343 
Conversion sleeve square/square 22/19 mm	773836 
Conversion sleeve star/square 22/17 mm	684858 
Conversion sleeve star/star 22/14 mm	666684 
Conversion sleeve star/square 22/11 mm	773344 
Conversion sleeve star/square 27/22 mm	774594 
Conversion sleeve square/square 27/19 mm	774279 
Conversion sleeve square/square 27/17 mm	774193 

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