









## 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

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



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## 1. General technical data

### 1.1. General data

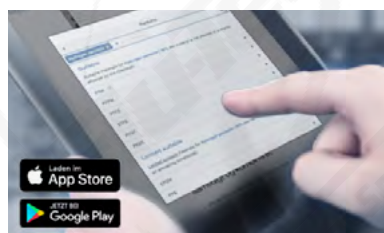
Product properties	
Dimensions	Detailed information can be found in chapter "3. Dimensions" on page 5.
<b>Material</b>	
Cover	Polycarbonate (Lexan 943A)
Body	Aluminium silicon alloy (AlSi12)
<b>Weight</b>	
On/Off version (without accessories)	2.5 kg
Control version (without accessories)	4 kg
Drive	Double square 17 mm
Optical position indicator	Standard
Performance data	
<b>Torque</b>	
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	
<b>Operating voltage</b>	
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
<b>Control drive with analogue input signal and output signal</b>	
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°
<b>Ambient temperature</b>	
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



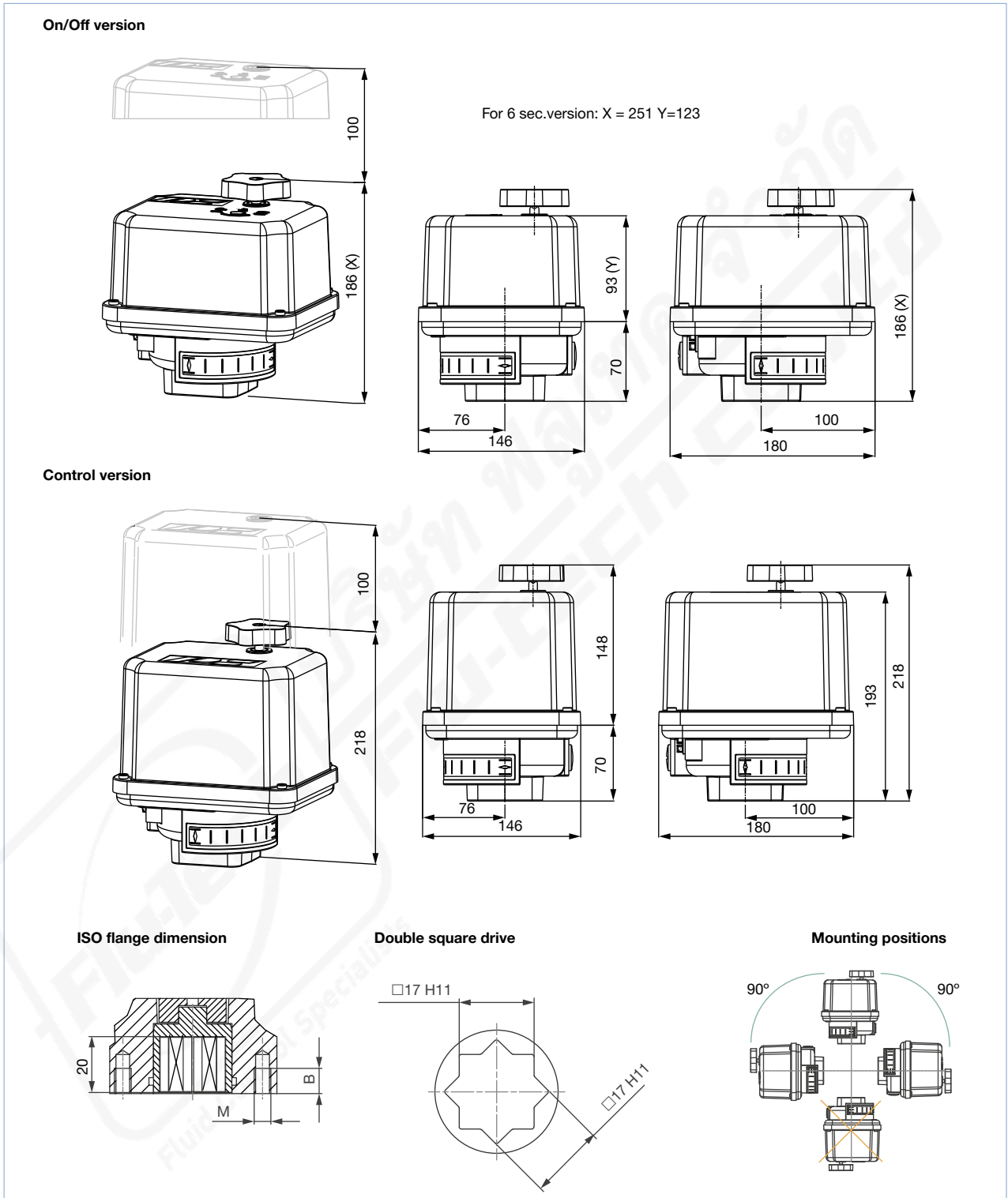
#### Bürkert resistApp – Chemical Resistance Chart

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

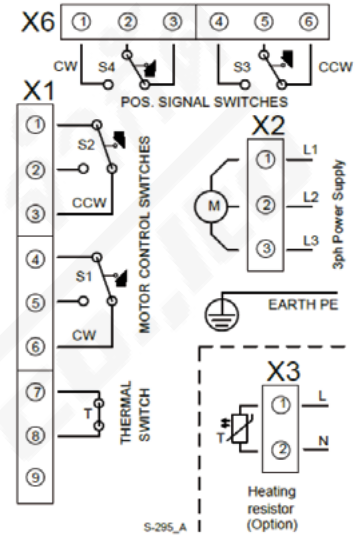
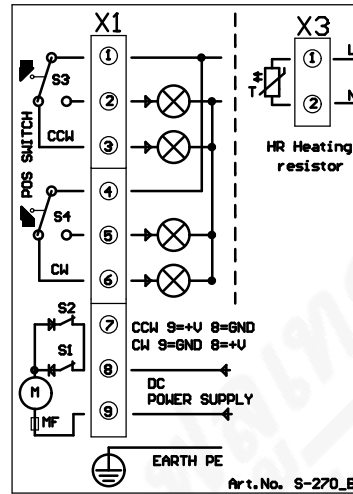
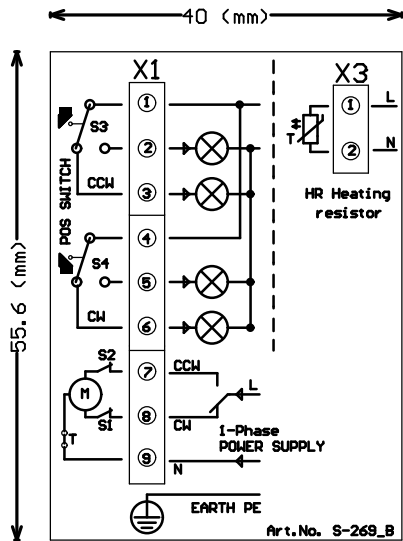
## 4. Device/Process connections

### 4.1. Electrical connections

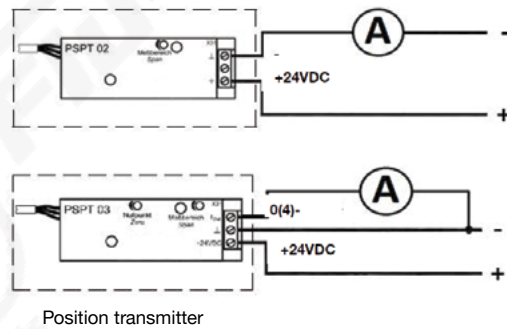
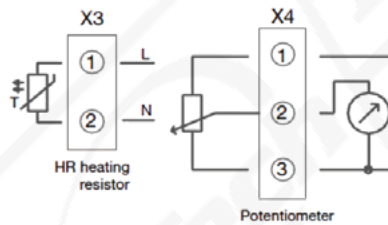
230 V, 115 V, 24 V  
AC supply

24 V  
DC supply

400 V AC



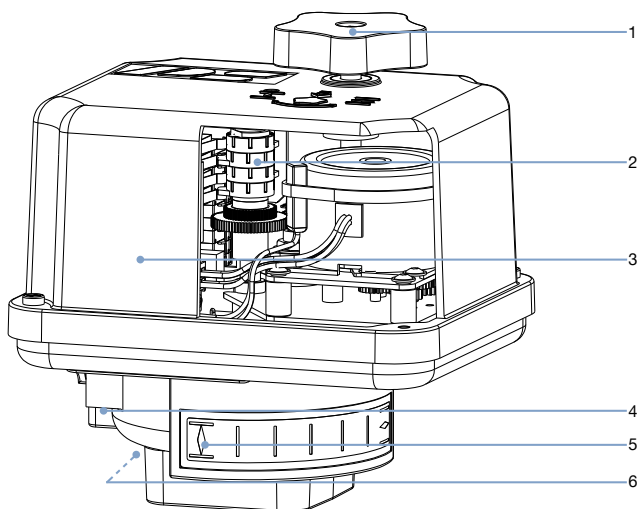
#### Options





## 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

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

### 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 <sup>1.)</sup>	Rotation time <sup>2.)</sup>			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 <sup>1.)</sup>	Rotation time <sup>2.)</sup>			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 ๙
Conversion sleeve star/square 14/11 mm	665289 ๙
Conversion sleeve square/square 17/14 mm	665290 ๙
Conversion sleeve star/square 17/14 mm	773348 ๙
Conversion sleeve star/square 17/11 mm	773343 ๙
Conversion sleeve square/square 22/19 mm	773836 ๙
Conversion sleeve star/square 22/17 mm	684858 ๙
Conversion sleeve star/star 22/14 mm	666684 ๙
Conversion sleeve star/square 22/11 mm	773344 ๙
Conversion sleeve star/square 27/22 mm	774594 ๙
Conversion sleeve square/square 27/19 mm	774279 ๙
Conversion sleeve square/square 27/17 mm	774193 ๙

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