









## Electrical Rotary Actuator - On/Off and control

- Direct mounting on ball and 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 guarantees a long service life.

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 many additional features such as heating resistors and potentiometers.

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## 1. General technical data

### 1.1. General data

<b>Product properties</b>	
Dimensions	Further information can be found in chapter "4. Dimensions" on page 6.
<b>Material</b>	
Cover	Polycarbonate (Lexan 943 A)
Body	Aluminium silicon alloy (AlSi12)
<b>Weight</b>	
On/Off variant (without accessories)	2.5 kg
Control variant (without accessories)	4 kg
<b>Performance data</b>	
<b>Torque</b>	
On/Off variant	25, 50 Nm
Control variant	25, 45 Nm
Rotation angle	90° (adjustable)
Rotation time (90°)	5...80 s Further information can be found in chapter "7. Ordering information" on page 8.
Options	Heating resistor (except at 400 V) Potentiometer (100, 200, 500, 1000, 2000 Ω)
<b>Electrical data</b>	
<b>Operating voltage</b>	
Synchronous motor	24 V AC / 115 V AC / 230 V AC / 400 V
DC motor	24 V DC
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...55 W Further information can be found in chapter "7. Ordering information" on page 8.
Overvoltage category	II
<b>Control drive with analogue input signal and analogue output signal</b>	
Input	2...10 V / 0...10 V / 4...20 mA / 0...20 mA
Output	0...10 V
Motor protection	Thermoswitch Multiple fuse for On/Off variant with 24 V DC
Duty cycle	According to IEC60034 - 1.8 S2 short-term operation (On/Off variant): 20 min S3/S4 control operation: 1200 cycles/hour, 25 % duty cycle at + 25 °C
<b>Process/Port connection &amp; communication</b>	
Electrical connection	Cable glands gemäß M20 × 1.5
Armature-side interface	Double square 17 mm
Position indicator	Standard
<b>Approvals and conformities</b>	
Degree of protection	IP65
<b>Environment and installation</b>	
Installation position	Do not install the actuator upside down, maximum installation angle: 90°.
<b>Ambient temperature</b>	
On/Off variant	- 25 °C...+ 70 °C (S2)
Control variant	- 20 °C...+ 60 °C (S4)

## 1.2. Electrical data

Actuator		Power supply	Voltage				
Variant	Torque		230 V AC	115 V AC	24 V AC	400 V	24 V DC
On/Off variant	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
		Maximum 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	-
		Maximum current [A]	0.2	0.41	1.9	0.13	-
		Power consumption [W]	39	39	39	55	-
	50 Nm (medium-fast 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
		Maximum current [A]	0.06	0.15	0.73	-	1.2
		Power consumption [W]	13	15	15	-	15
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	-	-	
	Maximum current [A]	0.04	0.08	0.4	-	-	
	Power consumption [W]	8	8	8	-	-	
Control variant	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	-	-
		Maximum 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	-	-
		Maximum current [A]	0.12	0.24	1.2	-	-
		Power consumption [W]	22	22	22	-	-

## 2. Approvals and conformities

### 2.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.

### 2.2. Conformity

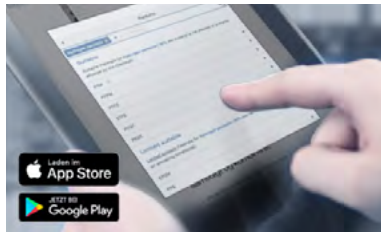
In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

### 2.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

## 3. Materials

### 3.1. Bürkert resistApp



#### Bürkert resistApp – Chemical resistance chart

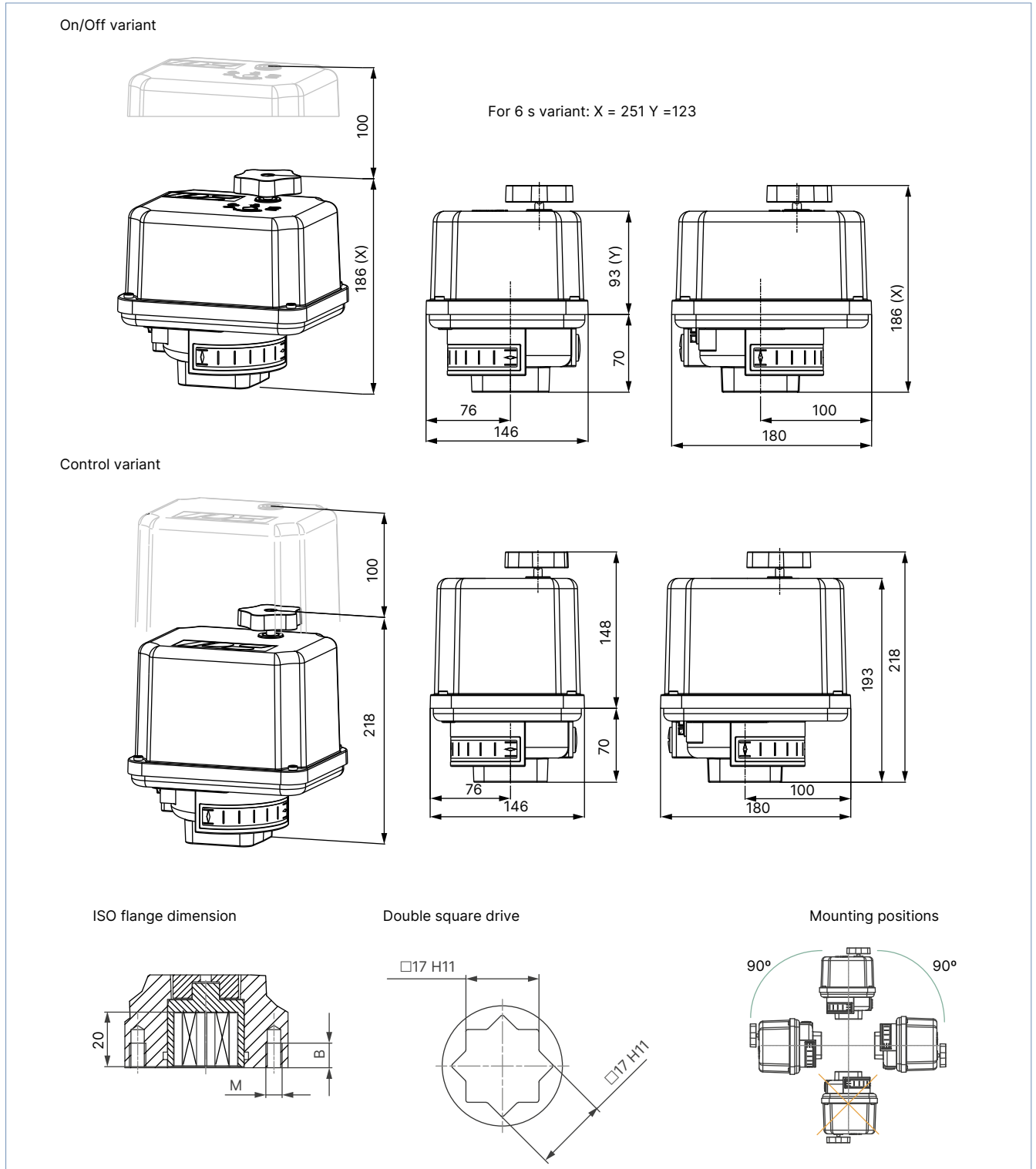
You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

## 4. Dimensions

**Note:**

Dimensions in mm



Armature-side interface according to ISO 5211	F04/F07	F05/F07
M	M5/M8	M6/M8
B	8/12 mm	9/12 mm

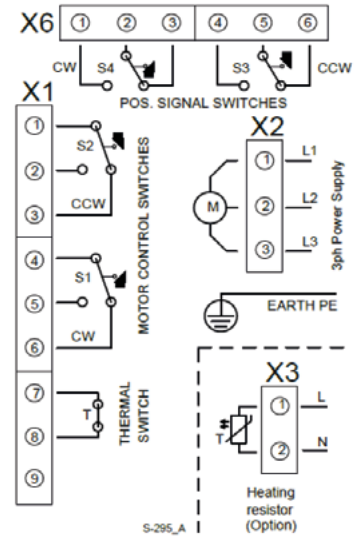
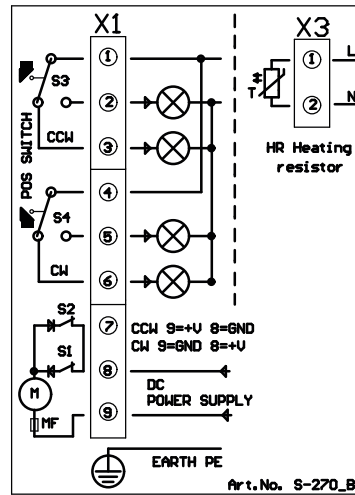
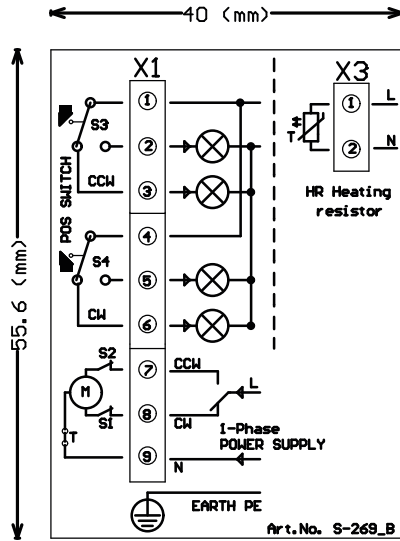
## 5. Device/Process connections

### 5.1. Electrical connections

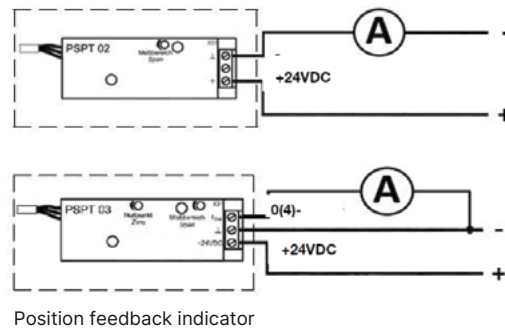
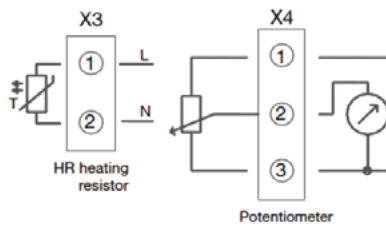
230 V, 115 V, 24 V  
AC supply

24 V  
DC supply

400 V AC

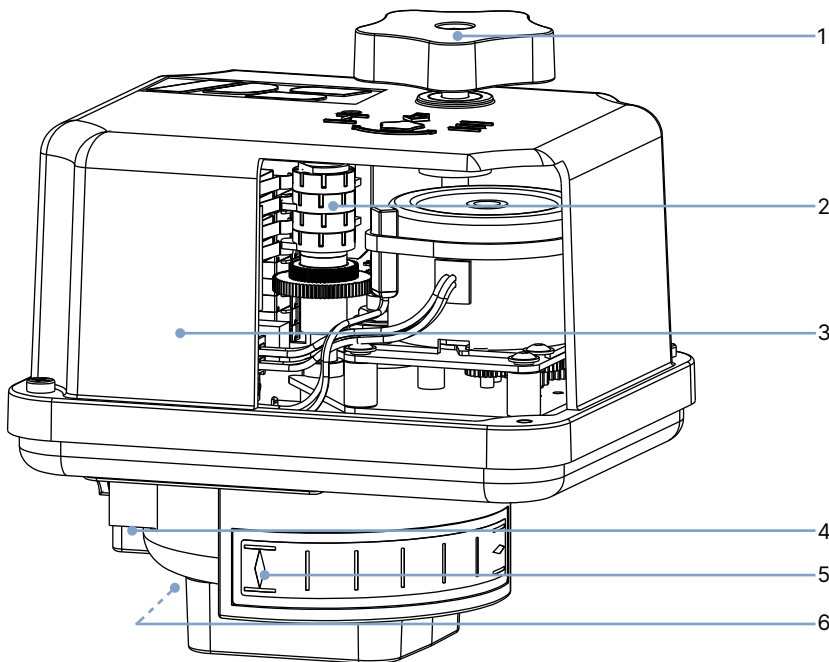


#### Options



## 6. Product design and assembly

### 6.1. Product assembly



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

## 7. Ordering information

### 7.1. Bürkert eShop



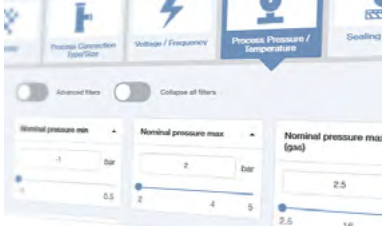
#### **Bürkert eShop – Easy ordering and quick delivery**

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## 7.2. Bürkert product filter



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## 7.3. Ordering chart

### On/Off variant

Torque <sup>1)</sup> [Nm]	Double square [mm]	Interface acc. to ISO 5211	Rotation time <sup>2)</sup>			Article no. 230 V AC	Article no. 115 V AC	Article no. 24 V AC	Article no. 400 V	Article no. 24 V DC
			AC		DC					
			50 Hz [s]	60 Hz [s]						
25	17	F05/07	17	14	–	329988	329989	329990	–	–
		F04/07	–	–	–	329991	329992	329993	–	–
		F05/07	–	–	9	–	–	–	–	329994
		F04/07	–	–	–	–	–	–	–	329995
50	17	F05/07	6	5	–	329996	329997	329998	329999	–
		–	–	–	16	–	–	–	–	330000
		–	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 variant with analogue input and analogue output signal

Torque <sup>1)</sup> [Nm]	Double square [mm]	Interface acc. to ISO 5211	Rotation time <sup>2)</sup>			Article no. 230 V AC	Article no. 115 V AC	Article no. 24 V AC	Article no. 400 V	Article no. 24 V DC
			AC		DC					
			50 Hz [s]	60 Hz [s]						
25	17	F05/07	17	14	–	330007	330008	330010	–	–
		F04/07	–	–	–	330011	330012	330013	–	–
45	17	F05/07	17	14	–	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 variants on request**












**Voltage**  
Other supply voltages

## 7.4. Ordering chart accessories

### Actuator accessories

Description	Article no.
Heating resistor for Type 3003-PS (for 230 V AC and 115 V AC actuators)	774106 
Heating resistor for Type 3003-PS (for 24 V AC/DC actuators)	774210 
2-wire position indicator for Type 3003-PS	774107 
3-wire position indicator for Type 3003-PS	774108 
Potentiometer 100 Ω for Type 3003-PS (for On/Off variant)	774109 
Potentiometer 200 Ω for Type 3003-PS (for On/Off variant)	774110 
Potentiometer 500 Ω for Type 3003-PS (for On/Off variant)	774111 
Potentiometer 1000 Ω for Type 3003-PS (for On/Off variant)	774112 
Potentiometer 2000 Ω for Type 3003-PS (for On/Off variant)	774113 

### Reducing sleeves

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