



## Explosion proof rotary actuator

### - On/Off or programmable regulating actuator

- Direct mounting for quarter-turn valves
- Manual override standard
- Corrosion resistant
- Adjustable limit switches
- ATEX II 2 GD Ex d II B T6

Type 3004 can be combined with...



**Type 2651**

2-piece st. st.  
ball valve



**Type 2654**

3-piece st. st.  
ball valve



**Type 2657**

Plastic  
Ball valve



**Type 2671**

Metal  
butterfly valve



**Type 2674**

Plastic  
butterfly valve

The rotary actuator type 3004 is a compact, powerful and explosion proofed actuator system which provides a long service life. Materials and components have been chosen for maintenance-free operation and ensure low thermal loading on the actuator. The modular design offers many options such as extra limit switches or potentiometers, to be added to the basic unit.

#### Technical data

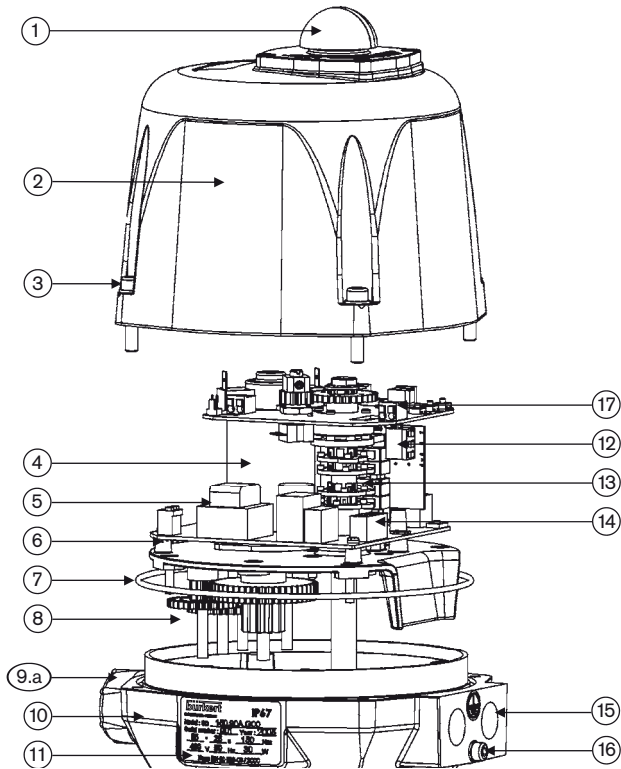
<b>Torque</b>	25, 45, 75, 100, 150 and 300 Nm (see ordering chart)
<b>Angle of rotation</b>	90° (±5°)
<b>90° rotation time</b>	7 up to 50 sec.(see ordering chart)
<b>Duty rating</b>	At max. torque: 50% of the time Control actuator: 50% of max. torque
<b>Power supply</b>	100-240 V AC / 50-60 Hz or 24 V AC/DC Tolerance ± 10%
<b>Power consumption</b>	45 W up to 85 W (see ordering chart)
<b>Motor protection</b>	Electronic torque limited
<b>Electrical connection</b>	2 cable glands ISO 20
<b>Mounting</b>	acc. ISO 5211 Motor 25, 45, 75 Nm F05/F07 Motor 100, 150, 300 Nm F07/F10
<b>Drive</b>	Motor 25 Nm Female star 17 mm; conversion sleeve star 17/11 mm enclosed Motor 45, 75 Nm Female star 17 mm; conversion sleeve star 17/14 mm enclosed Motor 100, 150, 300 Nm Female star 22 mm; conversion sleeve star 22/17 mm enclosed
<b>Installation</b>	Do not mount the actuator upside down!

Technical data	
<b>Limit switches</b>	4 adjustable (2 for motor and 2 additional for feedback) max. 250 V AC/5 A
<b>Analogue signals</b> control version (programmable)	
Input	- 0 - 10 V - 4 - 20 mA
Output	- 0 - 20 mA - 0 - 10 V - 4 - 20 mA - 0 - 20 mA
<b>Manual override</b>	
Motor 25, 45, 75 Nm	By outgoing axis with return spring
Motor 100, 150, 300 Nm	By hand wheel
<b>Mechanical limit stops</b>	Standard
<b>Optical position indicator</b>	Standard
<b>Material</b>	
Cover, Housing	Epoxy coated aluminium
Axis, screw	Stainless steel
Gear	Stainless steel
<b>Type of protection</b>	IP67
<b>Ambient temperature</b>	- 20 °C up to + 70 °C
<b>Weight</b>	
Motor 25, 45, 75 Nm	4 kg
Motor 100, 150, 300 Nm	6 kg
<b>Heating resistor</b>	10 W
<b>Options</b>	Rotation 180° or 270° 3 position actuator (for 180°) Feedback On/Off actuators: - Potentiometer 1K, 5K, or 10K - Analogue signal 4 - 20 mA Fail safe option* (on request) 2 extra limit switches

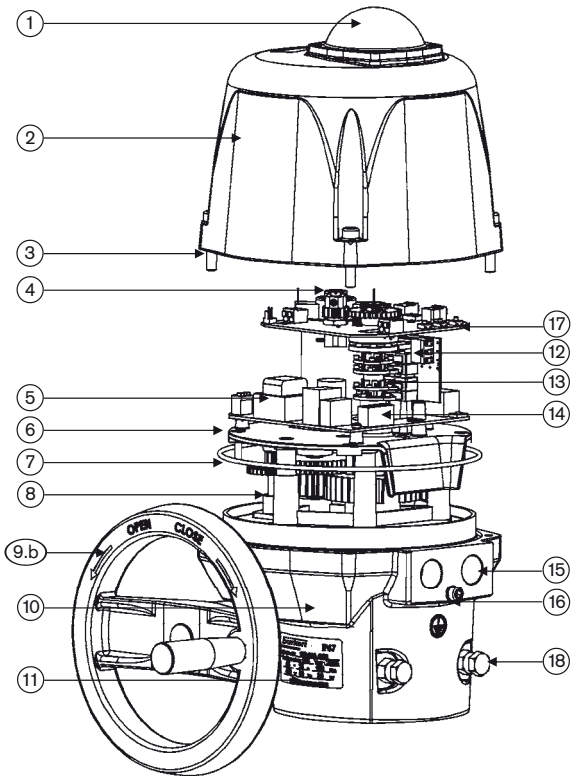
\* For fail safe option : ATEX II 2 GD Ex d II B T5

Exploded view

Motor 25 - 45 - 75 Nm



Motor 100 - 150 - 300 Nm



No.	Designation
1	Optical position indicator
2	Cover
3	Stainless steel screws
4	Motor
5*	Power supply card
6	Gear box
7	O-ring
8	Gear
9.a	Manual override
9.b	Hand wheel
10	Housing
11	Identification label
12	Auxiliary limit switch terminal
13	Cams
14*	Power supply terminal
15	Internal thread M20 × 1.5
16	Earth screw
17	Positioning card (only actuator with position control)
18	Mechanical limit stops

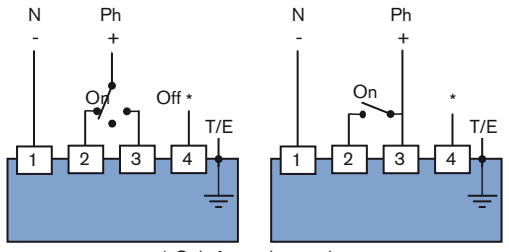
\* Only for multi-voltage version

Electrical connections

Multi-voltage or 24 V AC/DC standard version

SUGGESTED CUSTOMER WIRING

3-points modulating mode      On-Off mode  
 Switch on = actuator opens  
 Switch off = actuators closes



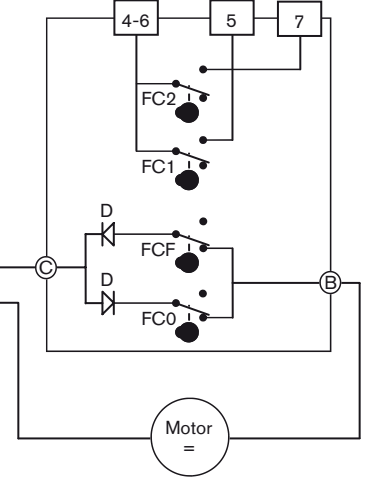
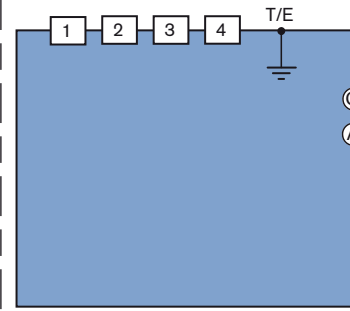
\* Only for probe version



INDICATED VOLTAGE ON ACTUATOR:  
 24 V AC/DC or 100-240 V AC (120-350 V DC)  
 (see actuator label)

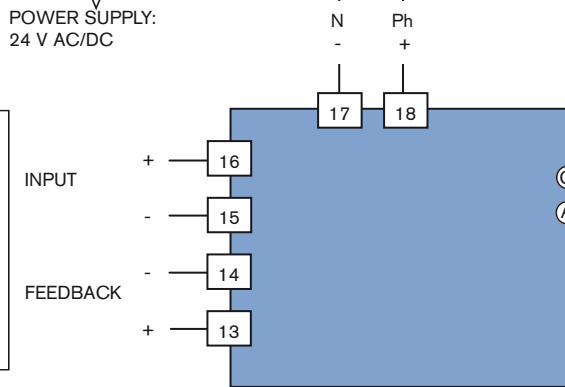
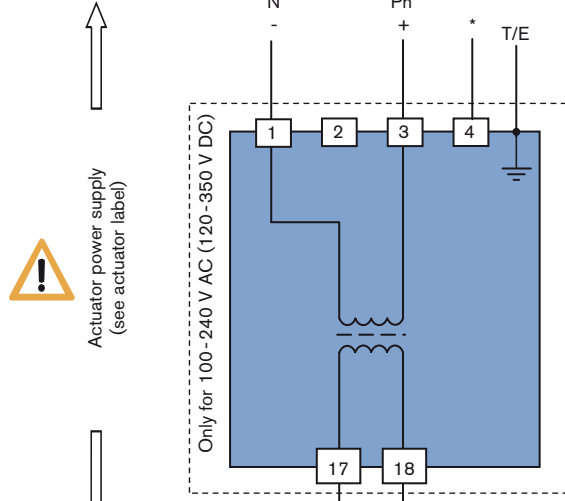
INTERNAL ACTUATOR WIRING

POWER SUPPLY AND COMMAND



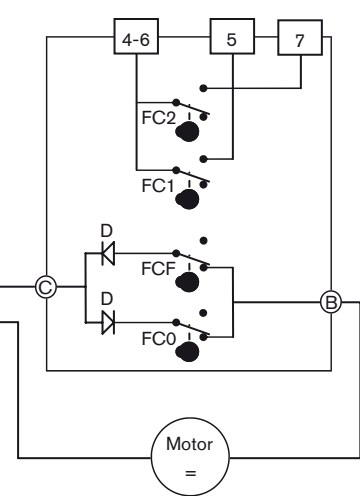
Multi-voltage or 24 V AC/DC with programmable analogue signal input or output

POWER SUPPLY:  
 100-240 V AC (120-350 V DC)      \* Only for probe version



Symbol	Designation
FCO	Open limit switch
FCF	Close limit switch
FC1	Auxiliary 1 limit switch
FC2	Auxiliary 2 limit switch

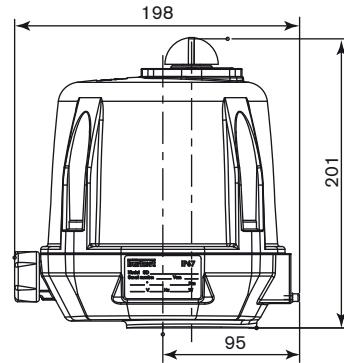
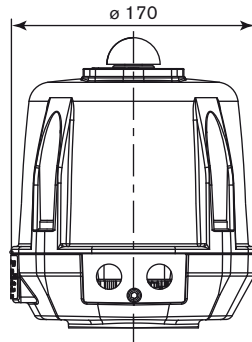
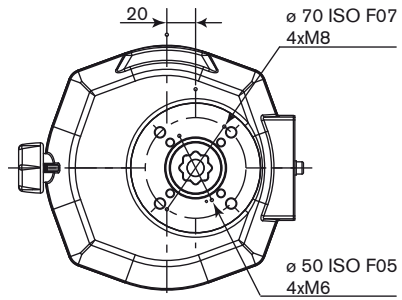
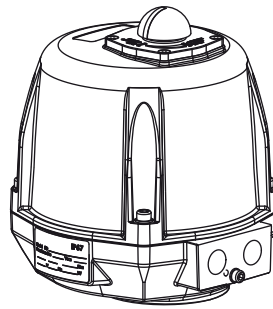
AUXILIARY FEEDBACK



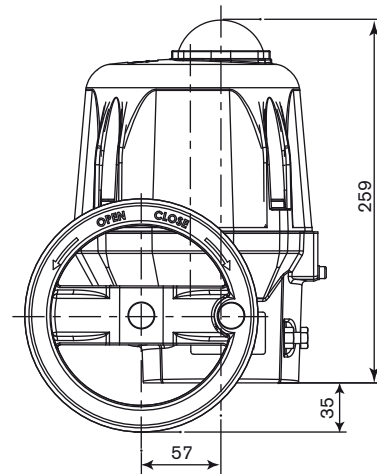
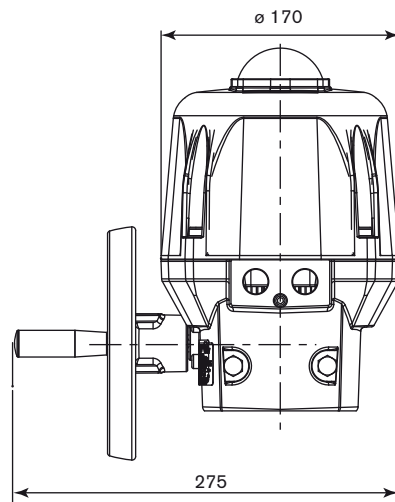
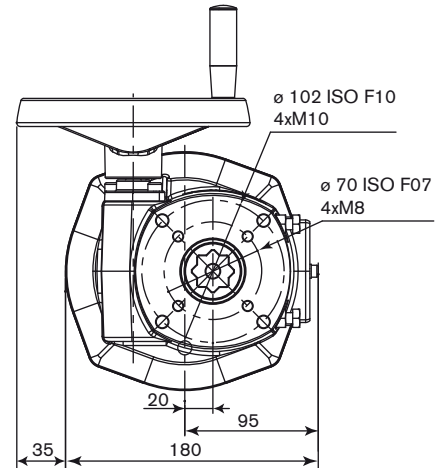
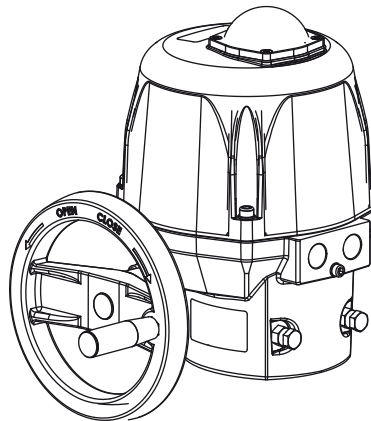
DTS 1000097022 EN Version: Q Status: RL (released | freigegeben | valide) printed: 05.03.2018

Dimensions [mm]

Motor 25 - 45 - 75 Nm















Motor 100 - 150 - 300 Nm



## Ordering chart (other versions on request)

### Standard version without analogue signal input

**Remark :** For the actuator choice, we recommend a safety torque equal to 1.5 times of the valve maximal torque (2 times for the control version).













Drive stars [mm]	Conversion adapter star [mm]	Connection flange	Torque [Nm]	90° travel [s]	Power consumption [W]	Voltage / Frequency [V / Hz]	Article no.
17	17/11	F05-F07	25	7	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181308 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181309 
	17/14		45	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181310 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181311 
			75	20	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181312 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181313 
22	22/17	F07-F10	100	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181314 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181315 
			150	30	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181316 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181317 
			300	50	85	100-240 V AC, / 50/60 Hz / 100-350 V DC	181318 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181319 

\*Other regulating times and delay angles on request

\*\*The operating voltage mustn't to fall below 11.5 V

### Control version with 4 - 20 mA, 0 - 20 mA or 0 - 10 V programmable analogue signal input or output

**Remark :** For the actuator choice, we recommend a safety torque equal to 1.5 times of the valve maximal torque (2 times for the control version).

Drive stars [mm]	Conversion adapter star [mm]	Connection flange	Torque [Nm]	90° travel [s]	Power consumption [W]	Voltage / Frequency [V / Hz]	Article no.
17	17/11	F05-F07	25	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182324 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182326 
	17/14		45	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182327 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182330 
			75	20	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182335 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182384 
22	22/17	F07-F10	100	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182385 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182386 
			150	30	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182388 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182390 
			300	50	85	100-240 V AC, / 50/60 Hz / 100-350 V DC	182392 
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182394 

\*Other regulating times and delay angles on request

\*\*The operating voltage mustn't to fall below 11.5 V

## Further versions on request



### Voltage

other voltages

## Ordering chart accessories

Description	Article no.
Key to adjust limit switches	665296 
Conversion sleeve star/square 14/9 mm	665288 
Conversion sleeve star/square 14/11 mm	665289 
Conversion sleeve star/star 22/14 mm	666684 
Conversion sleeve star/star 22/17 mm	666685 
Conversion sleeve square/square 17/14 mm	665290 

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