



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.

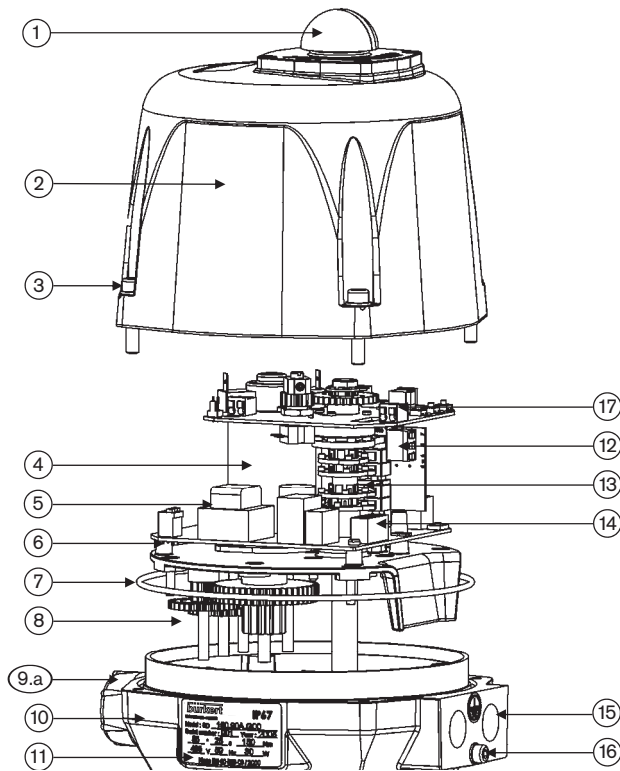
Technical data	
Torque	25, 45, 75, 100, 150 and 300 Nm (see ordering chart)
Angle of rotation	90° (+/- 5°)
90° rotation time	7 up to 50 s (see ordering chart)
Duty rating	At max. torque: 50% of the time Control actuator: 50% of max. torque
Power supply	100-240 V AC / 50-60 Hz or 24 V AC/DC Tolerance +/- 10%
Power consumption	45 W up to 85 W (see ordering chart)
Motor protection	Electronic torque limited
Electrical connection	2 cable glands ISO 20
Mounting	acc. ISO 5211 Motor 25, 45, 75 Nm F05/F07 Motor 100, 150, 300 Nm F07/F10
Drive	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
Installation	Do not mount the actuator upside down!

Technical data	
Limit switches	4 adjustable (2 for motor and 2 additional for feedback) max. 250 V AC/5 A
Analogue signals control version (programmable)	
Input	- 0-10 V - 4-20 mA
Output	- 0-20 mA - 0-10 V - 4-20 mA - 0-20 mA
Manual override	
Motor 25, 45, 75 Nm	By outgoing axis with return spring
Motor 100, 150, 300 Nm	By hand wheel
Mechanical limit stops	Standard
Optical position indicator	Standard
Material	
Cover, Housing	Epoxy coated aluminium
Axis, screw	Stainless steel
Gear	Stainless steel
Type of protection	IP67
Ambient temperature	-20°C up to + 70°C
Weight	
Motor 25, 45, 75 Nm	4 kg
Motor 100, 150, 300 Nm	6 kg
Heating resistor	4 W
Options	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

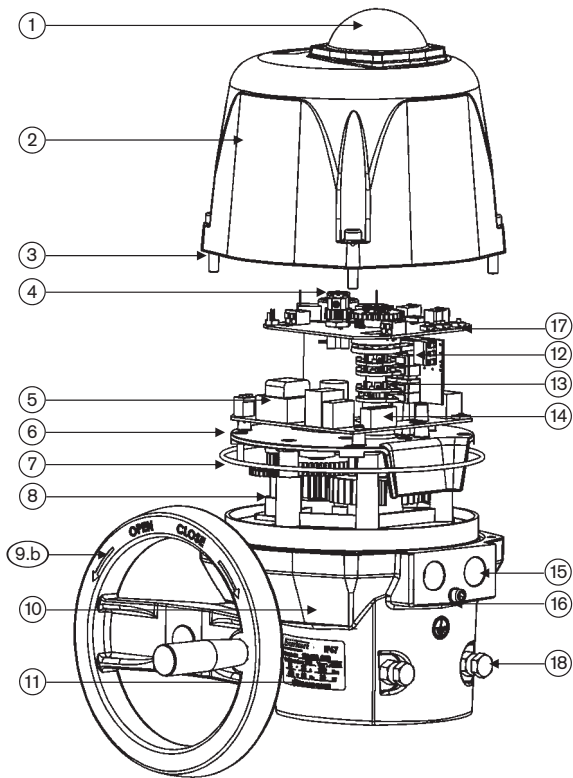
* For fail safe option : ATEX II 2 GD Ex d II B T5

Exploded view

Motor 25 - 45 - 75 Nm



Motor 100 - 150 - 300 Nm



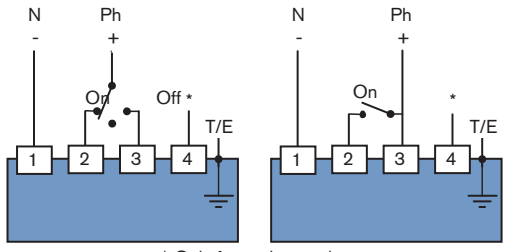
No.	Designation
1	Optical position indicator
2	Cover
3	Stainless steel screws
4	Motor
5*	Power supply card
6	Gear box
7	O-ring
8	Gear
9.a	Manual override
9.b	Hand wheel
10	Housing
11	Identification label
12	Auxiliary limit switch terminal
13	Cams
14*	Power supply terminal
15	Internal thread M20 x 1.5
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

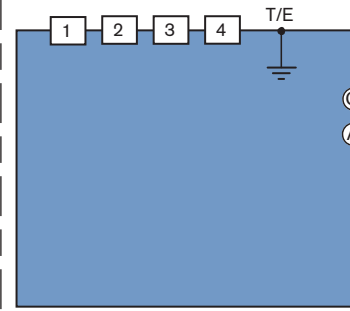


* Only for probe version



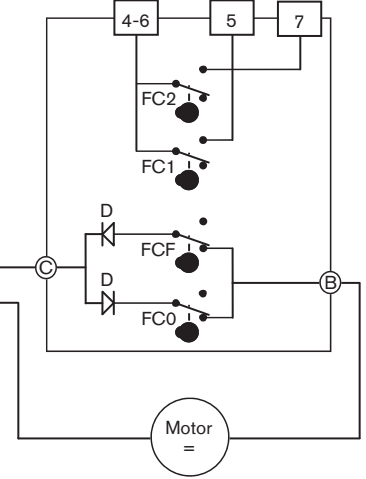
INDICATED VOLTAGE ON ACTUATOR:
 24 V AC/DC or 100-240 V AC (120-350 V DC)
 (see actuator label)

POWER SUPPLY AND COMMAND



INTERNAL ACTUATOR WIRING

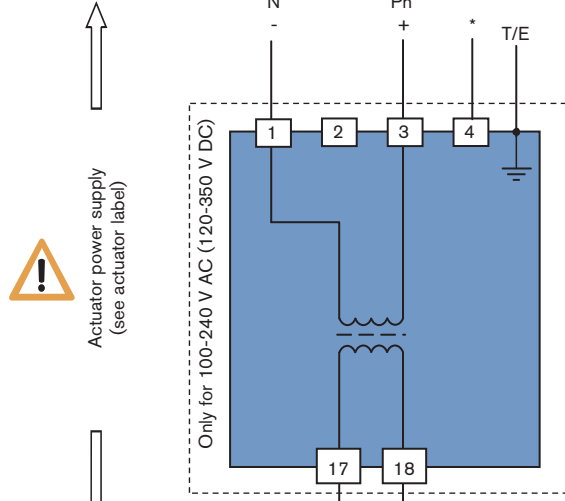
FEEDBACK



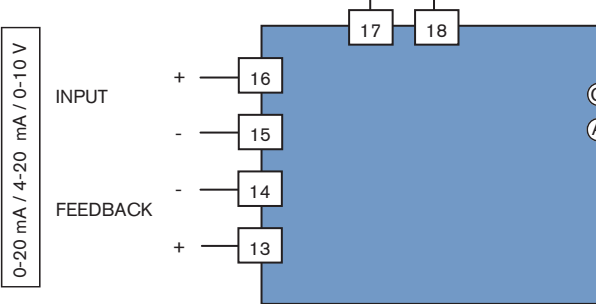
Multi-voltage or 24 V AC/DC with programmable analogue signal input or output

POWER SUPPLY:
 100-240 V AC (120-350 V DC)

* Only for probe version

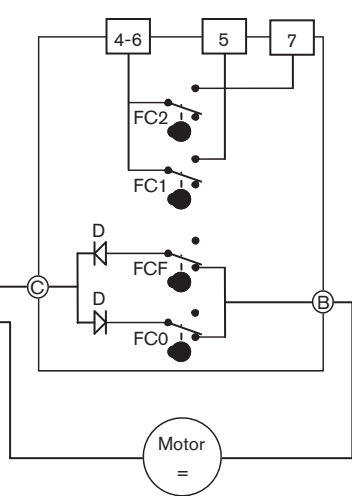


POWER SUPPLY:
 24 V AC/DC



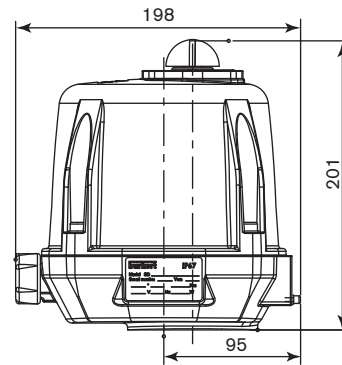
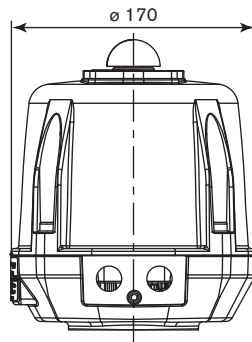
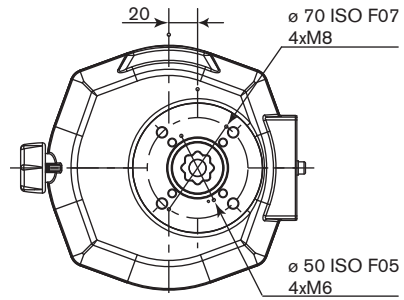
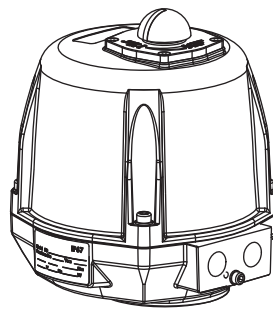
Symbol	Designation
FCO	Open limit switch
FCF	Close limit switch
FC1	Auxiliary 1 limit switch
FC2	Auxiliary 2 limit switch

AUXILIARY FEEDBACK

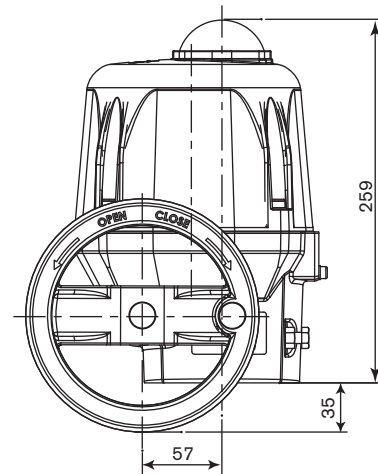
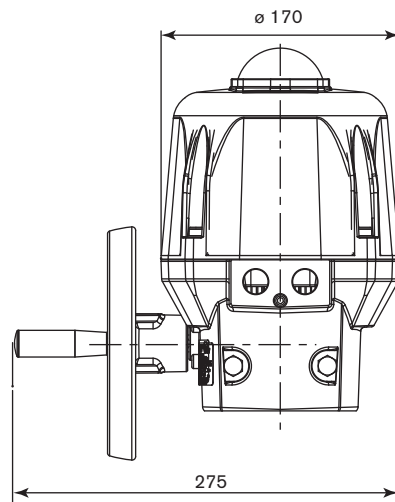
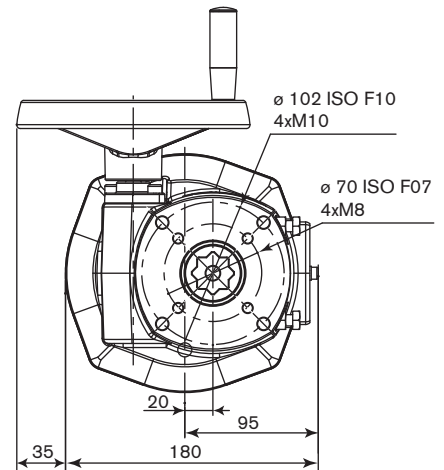
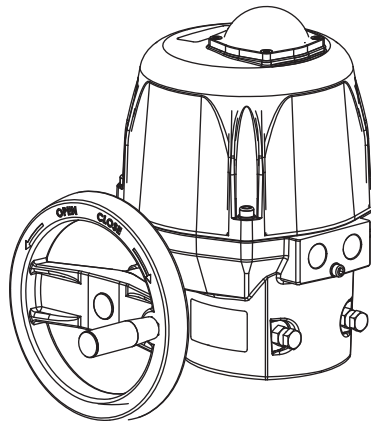


Dimensions [mm]

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]	Item no.
17	17/11	F05-F07	25	7	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181 308
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181 309
	17/14		45	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181 310
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181 311
			75	20	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181 312
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181 313
22	22/17	F07-F10	100	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181 314
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181 315
			150	30	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	181 316
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181 317
			300	50	85	100-240 V AC, / 50/60 Hz / 100-350 V DC	181 318
						15-30 V AC, 50/60 Hz / 12-48 V DC**	181 319

*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]	Item no.
17	17/11	F05-F07	25	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182 324
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182 326
	17/14		45	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182 327
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182 330
			75	20	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182 335
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182 384
22	22/17	F07-F10	100	15	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182 385
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182 386
			150	30	45	100-240 V AC, / 50/60 Hz / 100-350 V DC	182 388
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182 390
			300	50	85	100-240 V AC, / 50/60 Hz / 100-350 V DC	182 392
						15-30 V AC, 50/60 Hz / 12-48 V DC**	182 394

*Other regulating times and delay angles on request

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

i Further versions on request



Voltage

other voltages

Ordering chart accessories

Description	Item no.
Key to adjust limit switches	665 296
Conversion sleeve star/square 14/9 mm	665 288
Conversion sleeve star/square 14/11 mm	665 289
Conversion sleeve star/star 22/14 mm	666 684
Conversion sleeve star/star 22/17 mm	666 685
Conversion sleeve square/square 17/14 mm	665 290

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