



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 2672
Metal
Butterfly valve



Type 2675
Plastic
Butterfly valve

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

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.

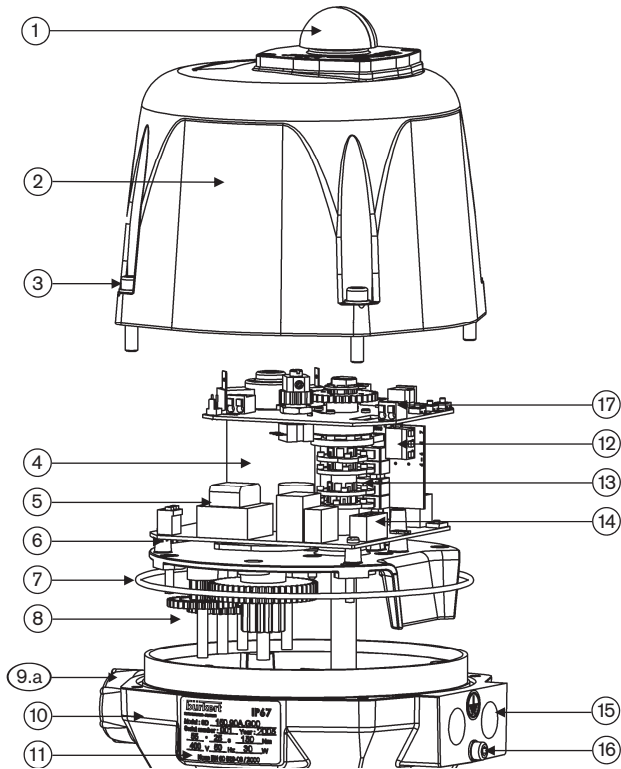
| Technical data | |
|------------------------------|--|
| Torque | 25, 45, 75, 100, 150 and 300 Nm (see ordering chart) |
| Angle of rotation | 90° (+/- 5°) |
| 90° rotation time | 7 up to 50 s (see ordering chart) |
| Duty rating | At max. torque: 50% of the time Control actuator: 50% of max. torque |
| 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 |

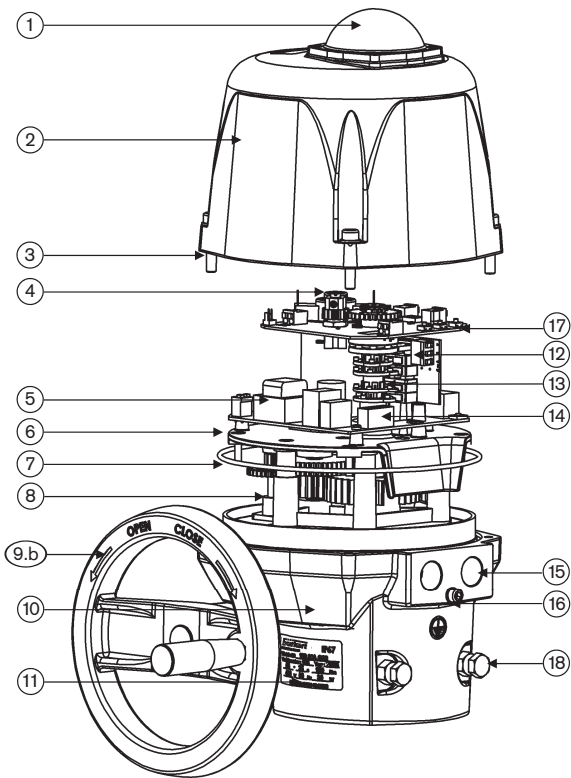
* For fail safe option : ATEX II 2 GD Ex d II B T5

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

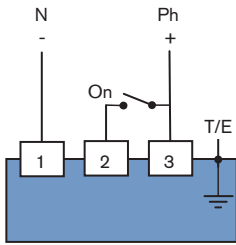
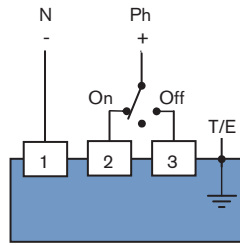
Electrical connections

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

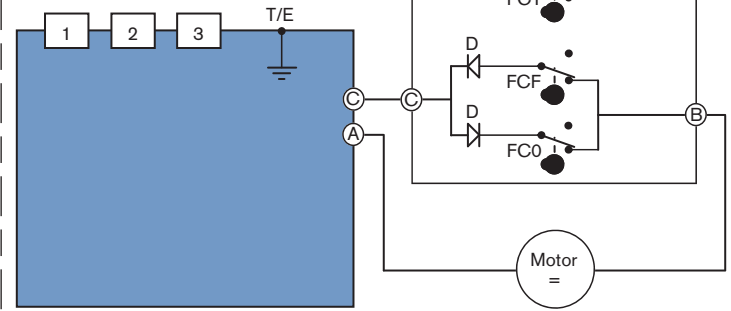


INDICATED VOLTAGE ON ACTUATOR:
24 V AC/DC or 100-240 V AC (120-350 V DC)
(see actuator label)

INTERNAL ACTUATOR WIRING

FEEDBACK

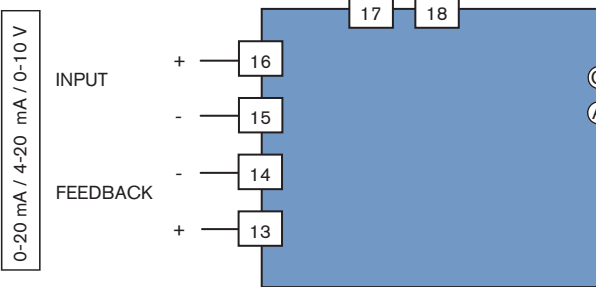
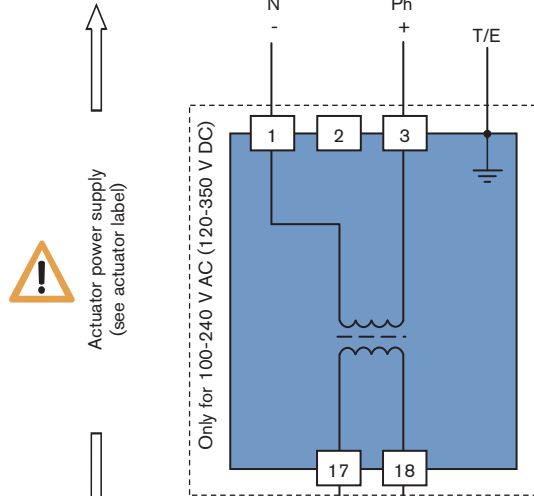
POWER SUPPLY AND COMMAND



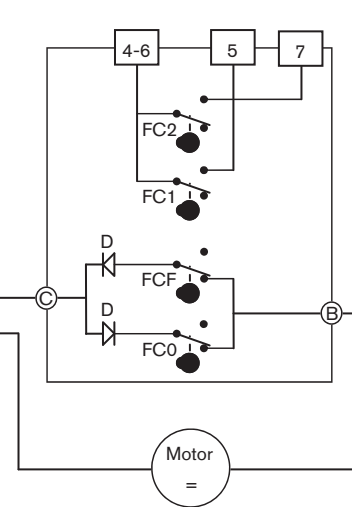
Multi-voltage or 24 V AC/DC with programmable analogue signal input or output

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

POWER SUPPLY:
24 V AC/DC



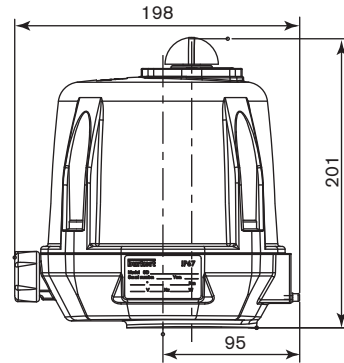
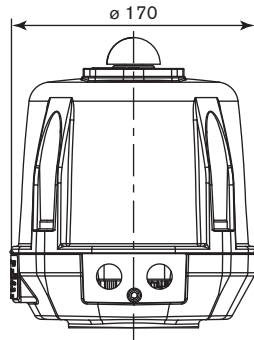
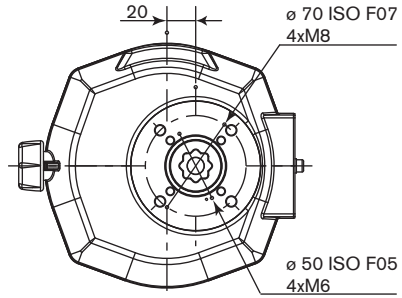
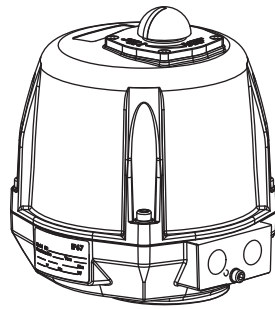
AUXILIARY FEEDBACK



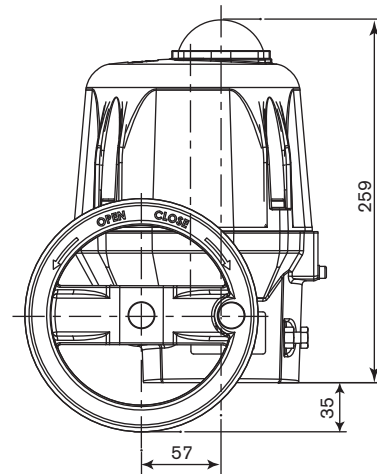
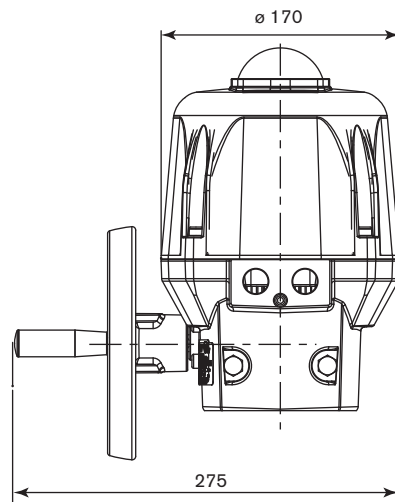
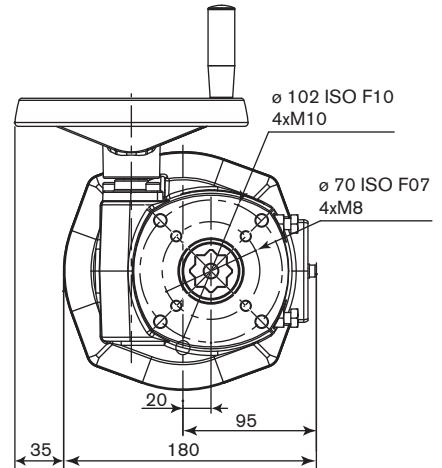
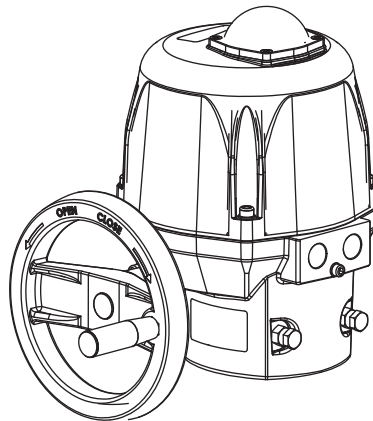
| Symbol | Designation |
|--------|--------------------------|
| FCO | Open limit switch |
| FCF | Close limit switch |
| FC1 | Auxiliary 1 limit switch |
| FC2 | Auxiliary 2 limit switch |

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 / 50-60 | 181 308 |
| | | | | | | 24 AC / DC | 181 309 |
| | 17/14 | F05-F07 | 45 | 15 | 45 | 100-240 / 50-60 | 181 310 |
| | | | | | | 24 AC / DC | 181 311 |
| | | | 75 | 20 | 45 | 100-240 / 50-60 | 181 312 |
| | | | | | 24 AC / DC | 181 313 | |
| 22 | 22/17 | F07-F10 | 100 | 15 | 45 | 100-240 / 50-60 | 181 314 |
| | | | | | | 24 AC / DC | 181 315 |
| | | | 150 | 30 | 45 | 100-240 / 50-60 | 181 316 |
| | | | | | | 24 AC / DC | 181 317 |
| | | | 300 | 50 | 85 | 100-240 / 50-60 | 181 318 |
| | | | | | 24 AC / DC | 181 319 | |

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 / 50-60 | 182 324 |
| | | | | | | 24 AC / DC | 182 326 |
| | 17/14 | F05-F07 | 45 | 15 | 45 | 100-240 / 50-60 | 182 327 |
| | | | | | | 24 AC / DC | 182 330 |
| | | | 75 | 20 | 45 | 100-240 / 50-60 | 182 335 |
| | | | | | 24 AC / DC | 182 384 | |
| 22 | 22/17 | F07-F10 | 100 | 15 | 45 | 100-240 / 50-60 | 182 385 |
| | | | | | | 24 AC / DC | 182 386 |
| | | | 150 | 30 | 45 | 100-240 / 50-60 | 182 388 |
| | | | | | | 24 AC / DC | 182 390 |
| | | | 300 | 50 | 85 | 100-240 / 50-60 | 182 392 |
| | | | | | 24 AC / DC | 182 394 | |

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 |
| Adapter external square 14/10 mm (for actuators with torque from 25 to 75 Nm) | 668 234 |
| Adapter external square 14/10 mm (for actuators with torque from 100 Nm) | 677 877 |

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