



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

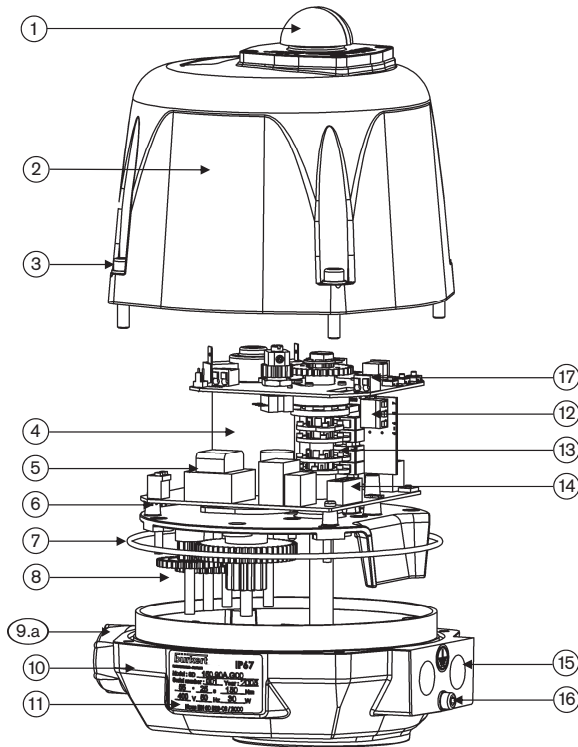
|                              |  |
|------------------------------|--|
| <b>Torque</b>                | 25, 45, 75, 100, 150 and 300 Nm (see ordering chart)   |
| <b>Angle of rotation</b>     | 90° (+/- 5°)   |
| <b>90° rotation time</b>     | 7 up to 50 s (see ordering chart)  |
| <b>Duty rating</b>           | At max. torque: 50% of the time<br>Control actuator: 50% of max. torque  |
| <b>Power supply</b>          | 100-240 V AC / 50-60 Hz or<br>24 V AC/DC<br>Tolerance<br>+/- 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<br>Motor 25, 45, 75 Nm<br>F05/F07<br>Motor 100, 150, 300 Nm<br>F07/F10   |
| <b>Drive</b>                 | Motor 25 Nm<br>Female star 17 mm;<br>conversion sleeve star 17/11 mm enclosed<br>Motor 45, 75 Nm<br>Female star 17 mm;<br>conversion sleeve star 17/14 mm enclosed<br>Motor 100, 150, 300 Nm<br>Female star 22 mm;<br>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)<br>max. 250 V AC/5 A  |
| <b>Analogue signals control version (programmable)</b> |  |
| Input  | - 0-10 V<br>- 4-20 mA  |
| Output   | - 0-20 mA<br>- 0-10 V<br>- 4-20 mA<br>- 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 + 55°C   |
| <b>Weight</b>  |  |
| Motor 25, 45, 75 Nm                                    | 4 kg   |
| Motor 100, 150, 300 Nm                                 | 6 kg   |
| <b>Heating resistor</b>                                | 4 W  |
| <b>Options</b>   | Rotation 180° or 270°<br>3 position actuator (for 180°)<br>Feedback On/Off actuators:<br>- Potentiometer 1K, 5K, or 10K<br>- Analogue signal 4-20 mA<br>Fail safe option* (on request)<br>2 extra limit switches |

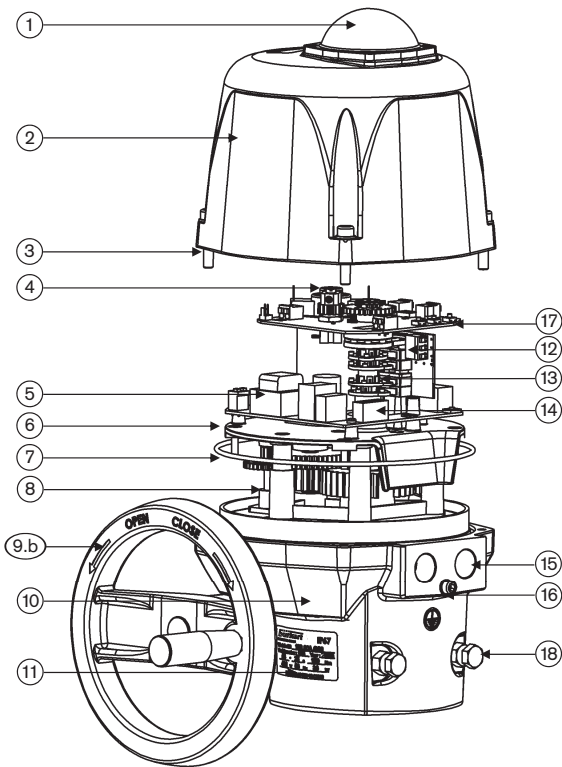
\* For fail safe option : ATEX II 2 GD Ex d II B T5

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

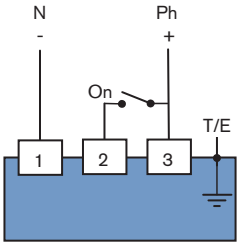
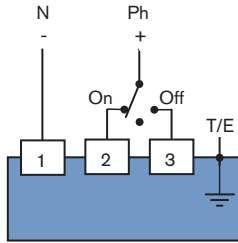
Electrical connections

Multi-voltage or 24 V AC/DC standard version

SUGGESTED CUSTOMER WIRING

3-points modulating mode

On-Off mode

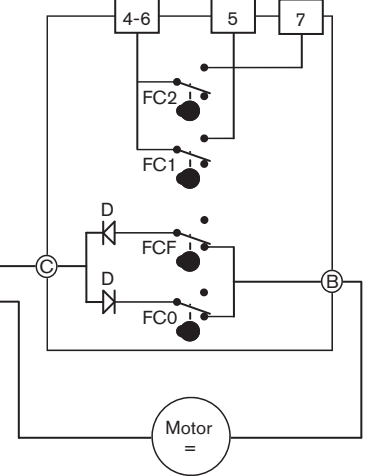
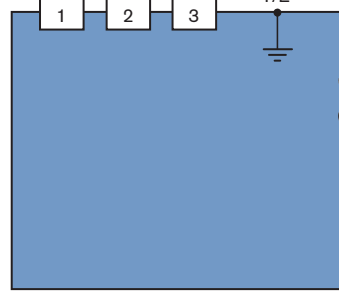


INDICATED VOLTAGE ON ACTUATOR:  
24 V AC/DC or 100-240 V AC (120-350 V DC)  
(see actuator label)

INTERNAL ACTUATOR WIRING

FEEDBACK

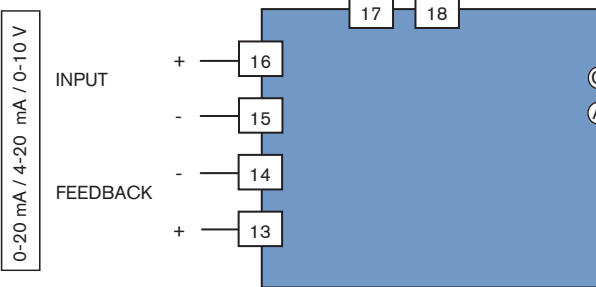
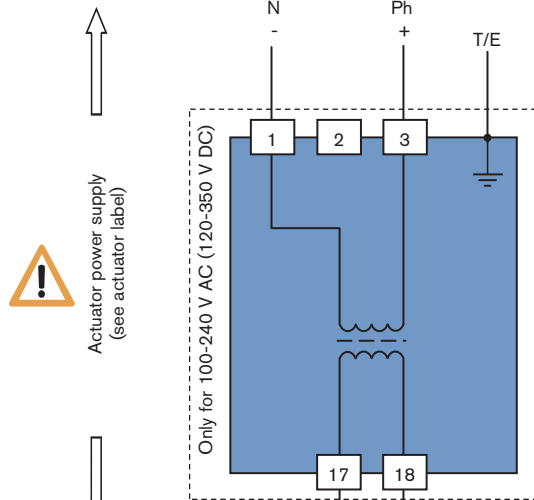
POWER SUPPLY AND COMMAND



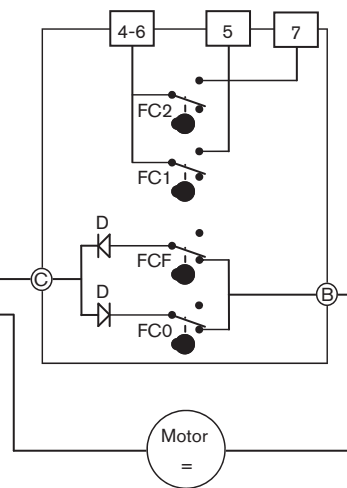
Multi-voltage or 24 V AC/DC with programmable analogue signal input or output

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

POWER SUPPLY:  
24 V AC/DC



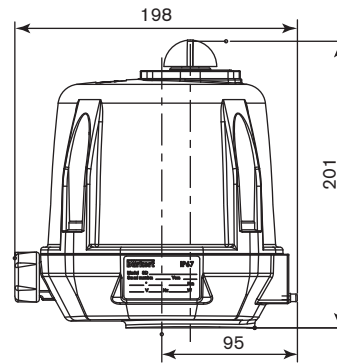
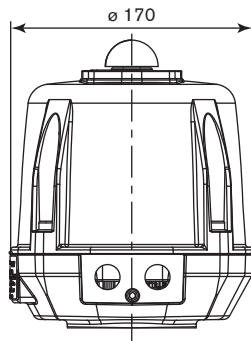
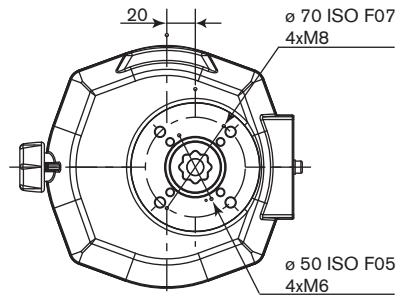
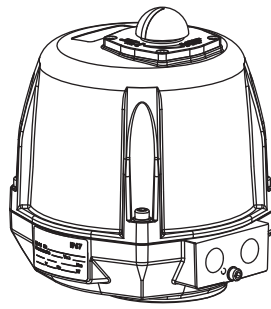
AUXILIARY FEEDBACK



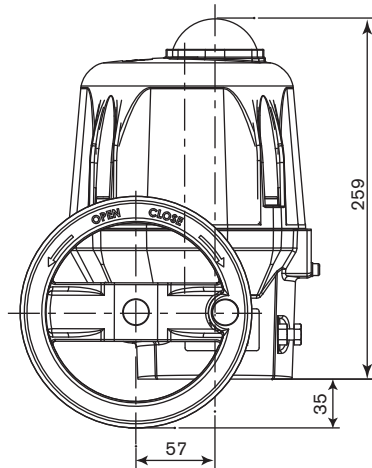
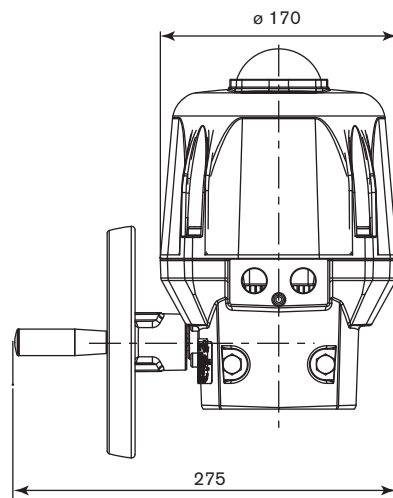
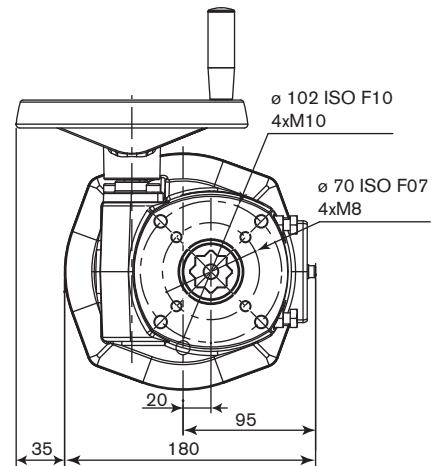
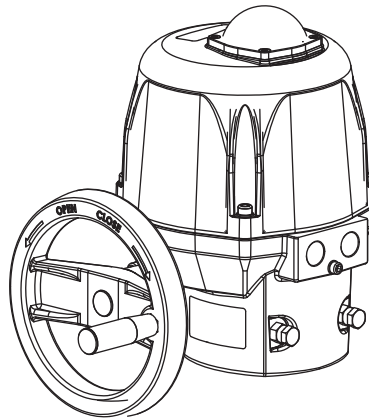
| Symbol | Designation              |
|--------|--------------------------|
| FCO    | Open limit switch        |
| FCF    | Close limit switch       |
| FC1    | Auxiliary 1 limit switch |
| FC2    | Auxiliary 2 limit switch |

## 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                        |                   | 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                        |                   | 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              | 182 382  |
|                  |                              |                   |             |                |                       | 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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