



Advantages/Benefits

- ▶ 25 Nm nominal torque
- ▶ Open/closed with choice of rotation speeds
- ▶ Flange interface ISO 5211
- ▶ IP 65 rating
- ▶ Corrosion resistant
- ▶ Available with manual override
- ▶ Optical position indication

Design/Function

The rotary actuator is a compact and powerful actuator system which provides 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 modular design offers many options such as extra limit switches, potentiometers, 4-20mA position control to be added to the basic unit.

Applications

The electric actuators operate control devices, such as:

- Ball valves
 - Butterfly valves
 - Disc valves
 - Ventilators
 - Mixer valves
- e.g. in chemical industry, water treatment industry, or dosing and bottling systems.



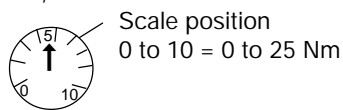
Technical Data

Specification

| | |
|--|---|
| Rotation angle | 90° |
| Drive torque | nominal torque 25 Nm (higher torques admissible for short periods) |
| Gear unit | rotation time rotation angle 7 s 90° 14 s 90° 28 s 90° |
| Drive | male / female square |
| Flange interface | ISO 5211 part 1 and 2, flange for plastic ball valve Type 145 |
| Ambient temperature with additional function | -20 °C to +50 °C -10 °C to +50 °C |
| Weight | approx. 3.6 kg (depending on version) |
| Additional function | automatic fail-safe in case of power failure with torque limitation |
| Body material | Polycarbonate, motor epoxy encapsulated. |

Torque Limitation

Drive torque The drive torque is independently adjustable from 0 up to the max. value for both the rotation directions via individual potentiometers.
P1, P2:



| | |
|-------------------------------|---|
| Electrical feedback signaller | Feedback "torque limitation initiated" via terminal 26 with $U = U_{nom}$ and $I_{max.} = 0.1 A$. |
| Torque control | As long as the "open" or "closed" signal is present, the applied torque is checked every 8 s after initial activation of the torque limit circuit. If the torque has dropped it is reset to the pre-selected value by short-time energizing of the motor. Thus, a pre-selected contact pressure for the seal of a butterfly valve can be accurately maintained. |

Electrical Data

| | |
|---|--|
| Operating voltages | 230 V/ 50 Hz, 110 V/ 60 Hz 12 V, 24 V/±, 24 V/UC (universal current) |
| Voltage tolerance | ±10 % |
| Power consumption (in warm condition) | AC 55 W* DC 20 W* |
| * with nominal voltage and nominal torque | |
| With additional function | 40 W |
| Duty cycle | AC 50 % intermittent operation UC, DC 100 % continuously rated |
| With additional function | 100 % continuously rated |
| Electrical connection | <ul style="list-style-type: none"> • 1 or 2 cable plugs for cable of 6-7 mm \varnothing, • cable gland Pg 11 DIN 46 320 |
| Rating | IP 65 |
| Limit switch | single-pole switch, max. 250 V/10 A |
| Potentiometer | R = 1 k Ω , max. 2 W at 70 °C ambient temperature |

Versions

| | | | | |
|-----------------------|---------------|---|---|---|
| 2-position operation: | Version | A | B | C |
| | Limit switch | 2 | 4 | 2 |
| | Potentiometer | - | - | 1 |

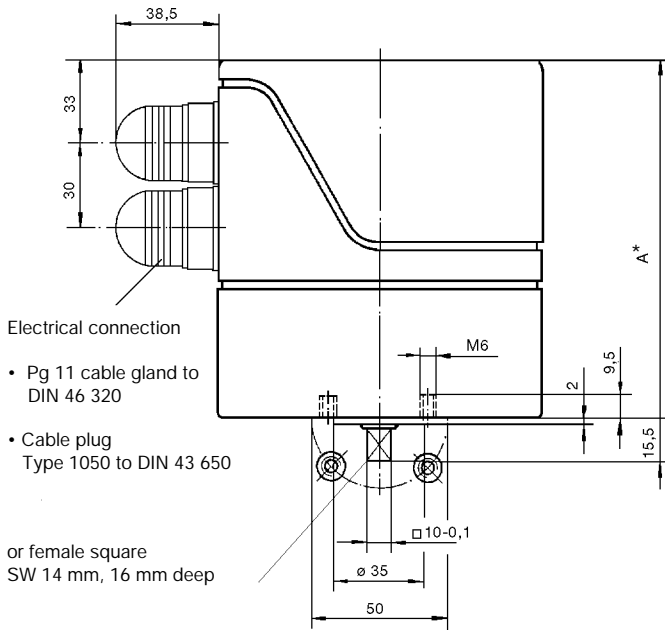
Standard signal

| | | |
|----------|--|------------------|
| Control | control signal | input resistance |
| | 4 - 20 mA | < 100 Ω |
| | 0 - 10 V | > 10 k Ω |
| Accuracy | deviation of linearity < ±0,3 % hysteresis < ±2 % | |

Fail-Safe in event of Power Failure

| | |
|-------------------------------------|--|
| Safety positions | "closed" in case of power failure "open" in case of power failure The safety positions are pre-selectable via a slide switch. The device is delivered in the pre-selected safety position "open" in case of power failure. |
| Max. rotation time (at max. torque) | 20 s |
| NC-accumulator capacity | reset without recharging: > 6 |
| NC-accumulator recharging time | max. 10 h, after total discharge |

Dimensions in mm

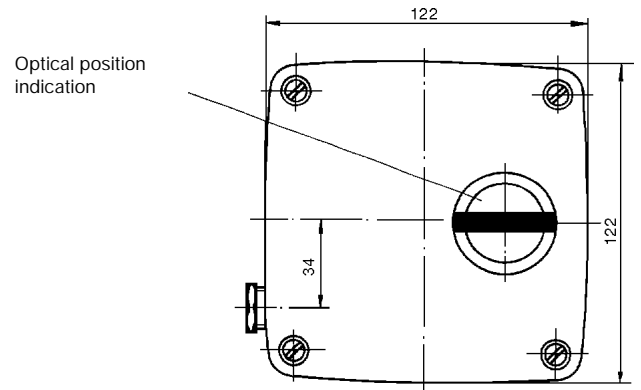


Electrical connection

- Pg 11 cable gland to DIN 46 320
- Cable plug Type 1050 to DIN 43 650

or female square SW 14 mm, 16 mm deep

* Dimension A
 Standard equipment: 133 mm
 with additional function and standard signal control: 185 mm

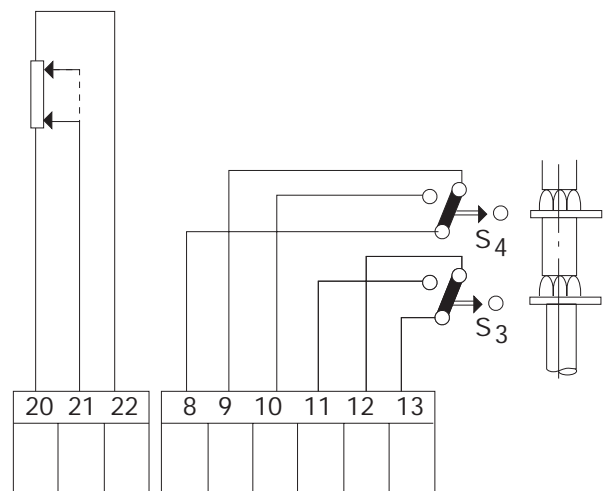
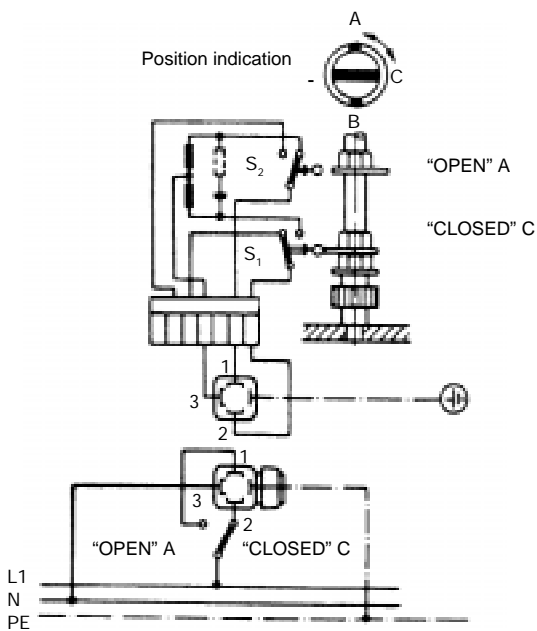


Standard Version

Symbol for version A

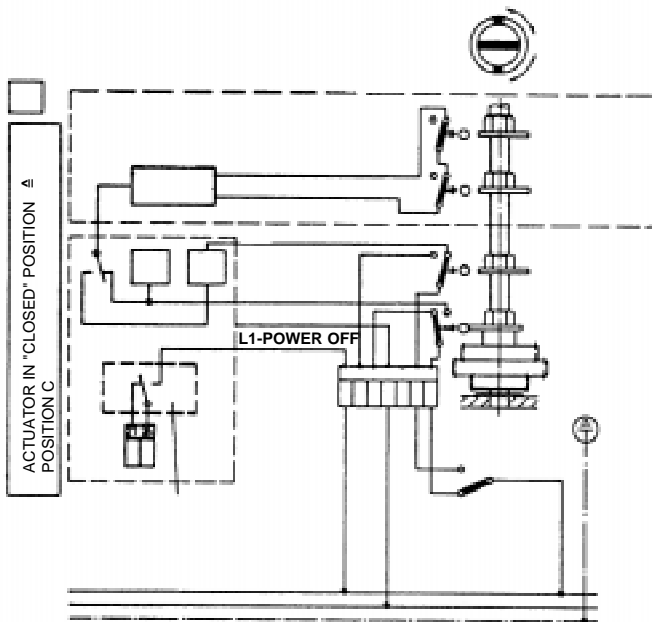
Version C with one potentiometer

Version B with 2 additional limit switches

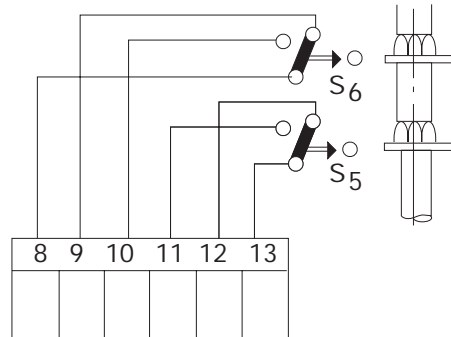


Torque Limitation, Fail-Safe on Power Failure

Symbol for version A

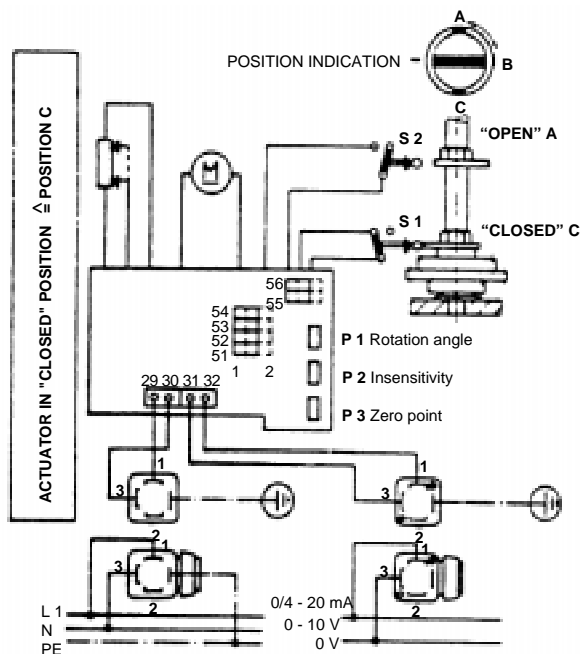


Version B
with 2 additional limit switches



Standard Signal

Symbol of version A (with current type, universal current)



- S 1 - S 4 in position 1 : 10 V or 20 m A Δ "CLOSED" C
- S 1 - S 4 in position 2 : 10 V or 20 m A Δ "OPEN" A
- S 5 - S 6 in position 1 : 0 - 10 V input
- S 5 - S 6 in position 2 : 0/4 - 20 m A input

Ordering Chart (Other Versions on Request)

| Version | Signal Control | Rotation Time [s] | Drive Square | Flange Interface | Electrical Connection | Voltage/ Frequency [V/Hz] | Order-No. | | | | |
|---------|----------------|-------------------|--------------|---------------------|-----------------------|---------------------------|-----------|------------------------|---------------|-----------|-----------|
| A | - | 7 | external | Flange for Type 145 | Cable plug | 110/60 | 000 760 X | | | | |
| | | | | | | 230/50 | 000 549 Q | | | | |
| | | | | ISO 5211 | Cable plug | 012/= | 005 878 B | | | | |
| | - | 7 | external | ISO 5211 | | Cable plug | 024/= | 000 229 P | | | |
| | | | | | | | 110/60 | 005 861 S | | | |
| | | | | | | Pg11 | 230/50 | 000 271 R | | | |
| | - | 7 | external | ISO 5211 | | Cable plug | 230/50 | 005 856 V | | | |
| | | | | | | internal | ISO 5211 | Cable plug | 024/= | 000 250 Y | |
| | | | | | | | | 110/60 | 006 123 P | | |
| | - | 7 | internal | ISO 5211 | | Cable plug | 230/50 | 000 187 W | | | |
| | | | | | | internal | ISO 5211 | Cable plug | 230/50 | 000 258 U | |
| | | | | | | external | ISO 5211 | Cable plug | 230/50 | 000 199 A | |
| 4-20 mA | | | 7 | | | external | ISO 5211 | Cable plug | 024/UC | 000 829 H | |
| | | | | | | | internal | ISO 5211 | Pg11 | 024/UC | 000 448 K |
| | | | | | | | | | Cable plug | 230/50 | 000 802 F |
| B | - | 7 | external | ISO 5211 | Pg11 | 024/= | 005 888 W | | | | |
| | | | | | | 2 Cable plugs | 110/60 | 000 382 H | | | |
| | | | | | | Pg11 | 230/50 | 005 857 W | | | |
| | - | 7 | external | ISO 5211 | | 2 Cable plugs | 230/50 | 000 381 G | | | |
| | | | | | | internal | ISO 5211 | Pg11 | 230/50 | 006 127 K | |
| | | | | | | | | 2 Cable plugs | 230/50 | 000 695 B | |
| | - | 7 | external | Flange for Type 145 | | Pg11 | 230/50 | 000 523W ¹⁾ | | | |
| | | | | | | 14 | external | ISO 5211 | 2 Cable plugs | 110/60 | 000 901 A |
| | C | 0-10 V | 7 | internal | ISO 5211 | Pg11 | 230/50 | 000 461 G | | | |

¹⁾ with additional function

