

# **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.

## Advantages/Benefits

- ▶ 100 Nm nominal torque
- Open/closed
- Flange interface ISO 5211
- IP 65 rating
- Corrosion resistant
- Available with manual override
- Optical position indicator

# 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 botting systems.



# Motorized Rotary Actuator

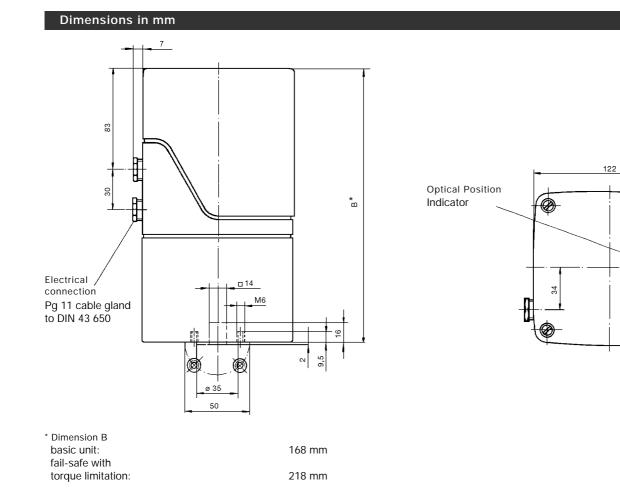
# Туре 3002

Technical Data		Electrical Data		
Specifications		Operating voltages	24 V/=	
Rotation angle	90°	Voltage tolerance	±10 %	
Drive torque	nominal torque 100 Nm (higher torques admissible for a short period of time)	Power consumption (hold) *at nominal voltage and no with additional function	AC 55 W* DC 20 W* pminal torque 40 W	
Gear unit	rotation time rotation angle 14 s 90°	Duty cycle	AC 50% intermittent operation UC, DC 100% continuously	
Drive	female square		rated	
Flange interface	ISO 5211 parts 1 and 2	With additional function	100 % continuously rated	
Ambient temperature with additional function	-20 °C to +50 °C -10 °C to +50 °C	Electrical connection	<ul> <li>1 or 2 cable plugs for 6-7 mm ø cable,</li> <li>PG 11 cable gland to DIN 46 320</li> </ul>	
Weight	approx. 4 kg (depending on version)	Rating	IP 65	
Additional function	automatic fail-safe in case of power failure with torque limitation	Limit switch	single-pole switch, max. 250 V/10 A	
Body material	polycarbonate	2-position operation:	VersionABLimit switch24	
Torque Limitation		Automatic Fail-Safe	on Power Failure	
Drive torque	The drive torque is independ- ently adjustable from 0 up to the max. value for both rota- tion directions via individual potentiometers.	p to failure ota-	"closed" in case of power "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".	
	P1, P2: Scale position 0 to 10 = 0 to 100 Nm	Max. rotation time (at max. torque)		
Electrical feedback signal	Rfeedback "torque limitation initiated" via terminal 26 with U = Unom and Imax.= 0.1 A.	NC-Accu-capacity	reset without recharging: > 3	
		NC-Accu-recharging time	max. 10 h, after total discharge	
Torque control	As long as the "open" or "closed" signal is applied, the applied torque is checked every 8 s after initial activation of the torque limit control 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			

# Motorized Rotary Actuator

# Type 3002

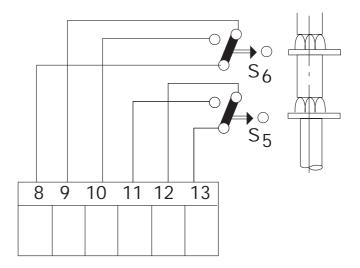
122



### **Basic Version**

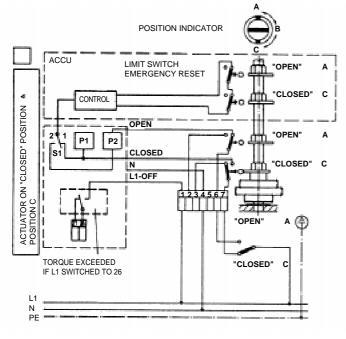
### Symbol of Version A

With 2 Additional Limit Switches (Version B)

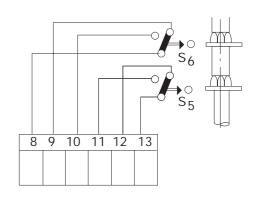


### Torque Limitation, Automatic Fail-Safe on Power Failure

#### Symbol of Version A



#### With 2 Additional Limit Switches (Version B)



#### Ordering Chart (Other Versions on Request)

Number of Limit Switches	Electrical Connection	Voltage / Frequency	Order-No.
Version		[V/Hz]	
2 A	cable plug	024/=	000 295 A
2	Pg11	230/50	000 249 T
2	cable plug	230/50	000 208 T
2	Pg11	230/50	006 298 F <sup>1)</sup>
2	cable plug	110/60	000 371 M
4 B	Pg11	024/=	000 339 M
4	Pg11	230/50	006 300M
4	2 cable plugs	230/50	000 596 Y
4	Pg11	230/50	006 292 Z <sup>1)</sup>

<sup>1)</sup> With additional function: fail-safe with torque limitation