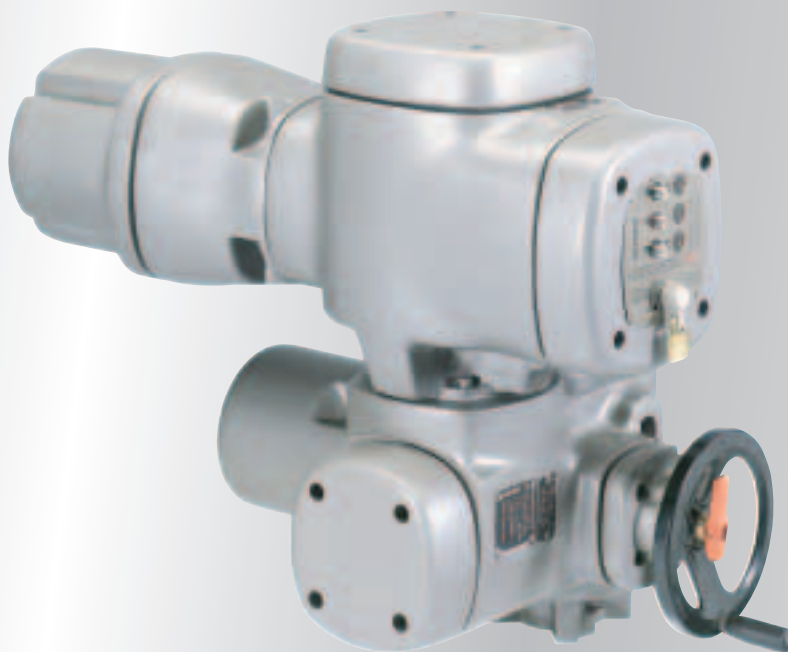




## *Electric actuators*

in fireproof version





## Electric actuators

Where highly flammable substances are part of a process, such as in the oil and gas industry, there still remains a fire hazard despite high safety standards. In the event of a fire the damage must be limited to a minimum. It is therefore necessary in these situations to influence the process, e.g. to cut off the supply of flammable substances.

This is only possible if fireproof equipment has been installed in the plant which will remain operative even under these extreme conditions.

### AUMA fireproof actuators

AUMA fireproof actuators can, in case of fire, contribute a great deal to limiting the risks for people, the environment and the plant. The functionality, application possibilities, operation and user friendliness are comparable to the proven non-fireproof actuators.

The basis for the fireproof actuator range is the explosion-proof actuator in the AUMA NORM type (without integral controls) and the AUMA MATIC or AUMATIC type (with integral controls). AUMA offers the following actuator types in a fireproof version:

- Multi-turn actuators for open-close duty  
SAExC 07.1 – SAExC 16.1
- Multi-turn actuators for modulating duty  
SARExC 07.1 – SARExC 16.1
- Part-turn actuators for open-close duty  
SGExC 05.1 – SGExC 12.1

Further information on these actuator types is available in the brochures:

- Product description  
Electric multi-turn actuators for open-close and modulating duty
- Product description  
Electric part-turn actuators  
for open-close and modulating duty

### Service conditions

#### Enclosure protection IP

AUMA products in the standard version conform to enclosure protection IP 67 according to EN 60 529. IP 67 means protection against immersion up to max. 1 m head of water for max. 30 minutes.

For higher requirements the actuators are available in increased enclosure protection IP 68.

#### Corrosion protection

As standard the fireproof actuators are coated with a high quality corrosion protection. This is suitable for outdoor installation and for slightly aggressive atmospheres with a low level of pollution.

#### Ambient temperatures

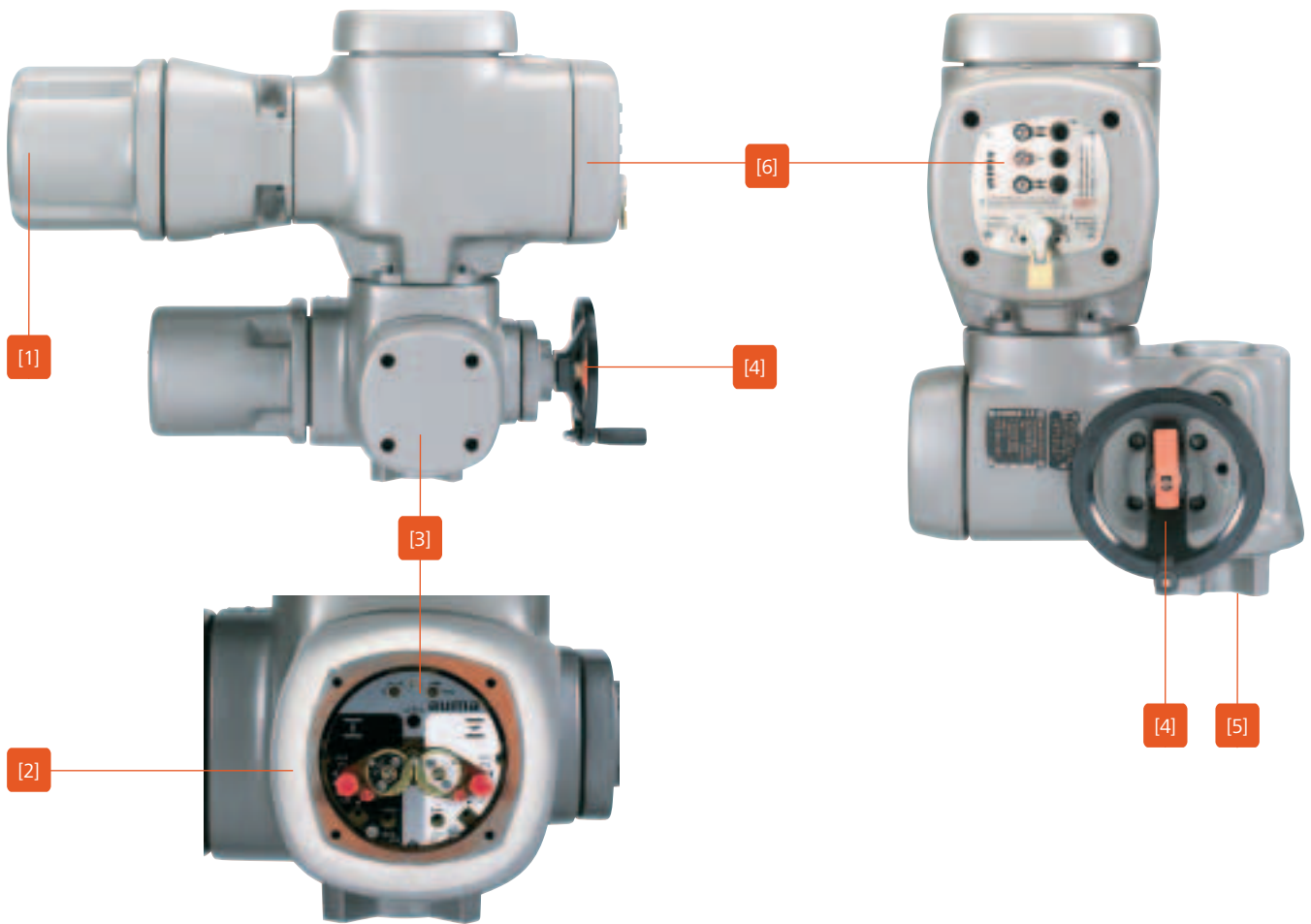
##### Normal operation

- $-20^{\circ}\text{C} - +40^{\circ}\text{C}$

Under certain conditions up to  $+60^{\circ}\text{C}$  possible.

##### In case of fire

The actuators remain fully operational for at least 30 minutes if exposed to a temperature of up to  $1\ 100^{\circ}\text{C}$ . Within this period of time the corresponding fireproof valve can be operated.



**[1] Electrical connection**

Plug-in electrical connection to the actuator. If the connection has to be removed for service reasons, the wiring remains intact. The disconnected electrical connection can be stored safely by using a parking frame that can be mounted to a wall.

**[2] Patented coating**

Fireproofing is achieved by using a patented K-Mass<sup>®</sup> coating by Thermal Designs, Inc. As the fire makes contact with the surface the coating expands and absorbs the externally supplied thermal energy of the fire.

**[3] Easy to service**

All housing covers can be removed separately which ensures optimum accessibility. This applies to both the electrical connection and the access to the setting elements for limit and torque switching (see illustration) as well as to the programming of the integral controls. It is also possible to remove individual components such as the motor or the controls for maintenance purposes.

**[4] Emergency manual operation**

If there is no voltage supply available, e.g. during installation or a power failure, the actuator can be operated manually.

**[5] Valve attachment**

Standard mounting flanges or output drives according to EN ISO 5210 for multi-turn actuators and EN ISO 5211 for part-turn actuators.

**[6] Integral controls (option)**

AUMA actuators with integral controls are ready for operation as soon as the supply voltage has been connected. The actuator can easily be operated locally via the integral controls. Extensive wiring in the control cabinet is not required. Depending on the version, AUMA MATIC or AUMATIC, they are suitable for simple OPEN-CLOSE applications, but can also perform complex control tasks.

[1] Multi-turn actuators  
SA 07.1 – SA 48.1  
Torques from 10 to 32,000 Nm  
Output speeds from 4 to 180 rpm

[2] Multi-turn actuators SA/SAR  
with controls AUMATIC  
Torques from 10 to 1,000 Nm  
Output speeds from 4 to 180 rpm

[3] Linear actuators SA/LE  
Combination of multi-turn actuator SA  
with linear thrust unit LE  
Thrusts from  
4 kN to 217 kN  
Strokes up to 500 mm  
Linear speeds  
from 20 to 360 mm/min

[4] Part-turn actuators  
SG 05.1 – SG 12.1  
Torques from 100 to 1,200 Nm  
Operating times for 90° from 4 to 180 s

[5] Part-turn actuators SA/GS  
Combination of multi-turn actuator SA with  
part-turn gearbox GS  
Torques up to 675,000 Nm

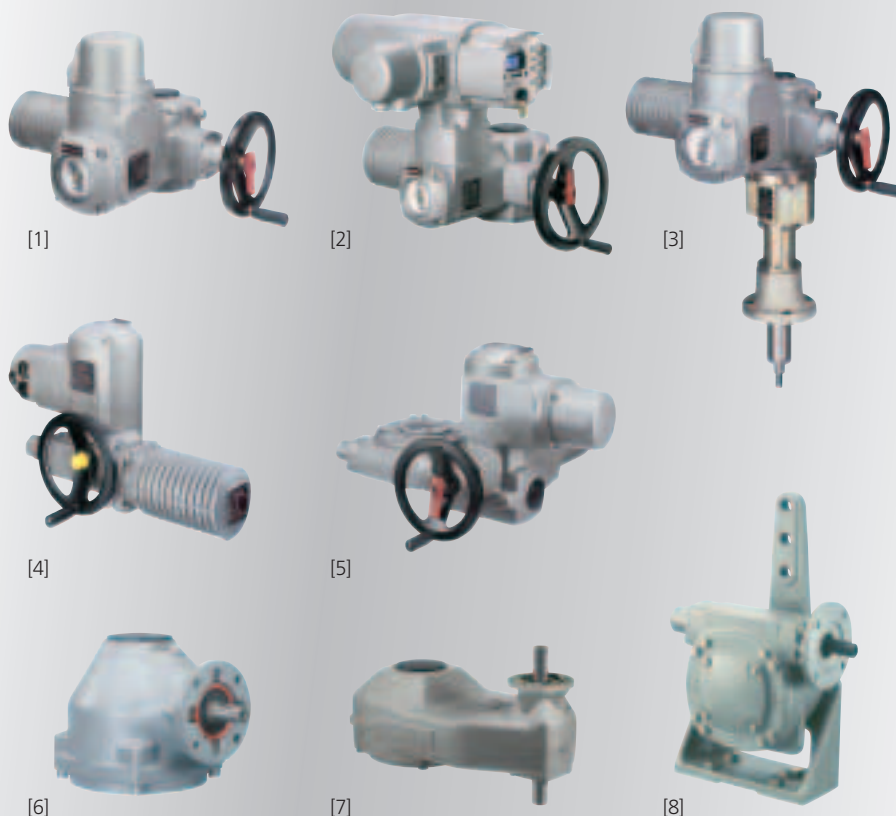
[6] Bevel gearboxes  
GK 10.2 – GK 40.2  
Torques up to 16,000 Nm

[7] Spur gearboxes  
GST 10.1 – GST 40.1  
Torques up to 16,000 Nm

[8] Worm gearboxes with base and lever  
GF 50.3 – GF 250.3  
Torques up to 32,000 Nm

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Y003.205/002/en/1.06

