



FAHLKE CONTROL SYSTEMS

GEHAZ 2000

Direct Current Electro-Hydraulic Actuator Technology



The new standard in compact hydraulic systems
produced by:

FAHLKE CONTROL SYSTEMS GMBH

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COMPANY PROFILE

For more than 25 years Fahlke Control Systems has combined its ingenuity with high quality standards, continuously pioneering valve actuator technology to obtain highest standards. Fahlke actuators are designed by this experience in actuator production and machined for the customer, who expects the best: efficiency, highest quality and long-term trouble free operation.

Fahlke Control Systems operates in compliance with the ISO 9001 standard and maintains a formal total quality management program to assure product excellence.

Continuing our innovative tradition, Fahlke Control Systems introduces the latest valve automation advancement: the new **GEHAZ 2000**.

PRODUCT CONCEPT

The GEHAZ 2000 is designed to work with a minimum of operation, installation and maintenance costs. Fahlke built the new actuator technology which can be easily mounted on top of every valve and used everywhere.



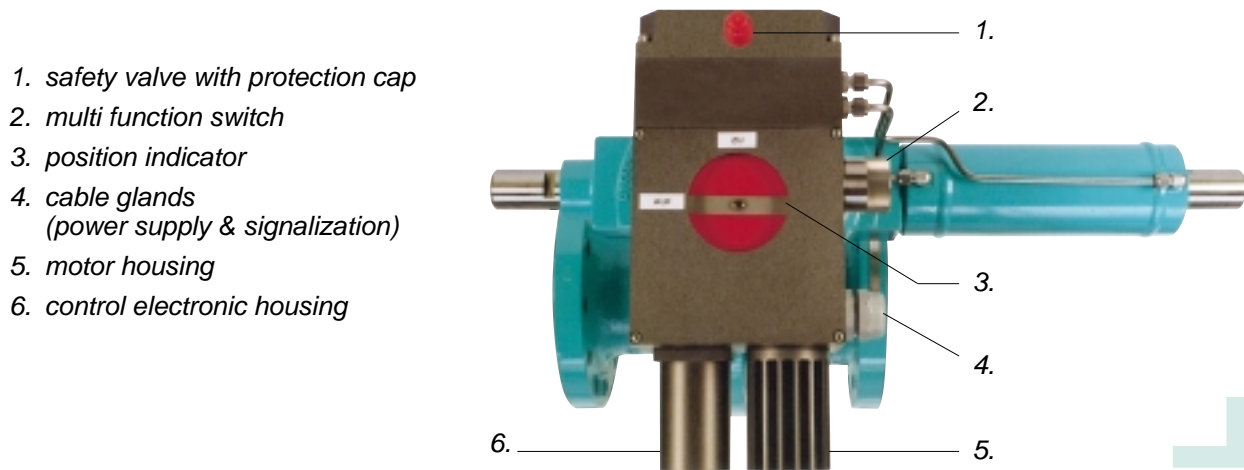
There is no requirement for gas and air connections, no tapping into gas pipelines or expensive air compressors with long supply piping.

The GEHAZ 2000 provides a unique, highly reliable means of operating ball-, butterfly- or plug valves as well as louvers, dampers and other 90° rotating mechanisms.

A decisive advantage of the GEHAZ 2000 is, that control time and torque output is adjustable after installation. The GEHAZ 2000 is made especially for our customers expecting unexpensive and perfectly small actuator solutions for open-close process of valves also in respect of minimum power consumption.

HOW DOES THE ELECTRO-HYDRAULIC GEHAZ 2000 CONTROL WORK?

The GEHAZ 2000 control consists of a small compact body with an integrated special motor-pump unit. All supply- and control tubes of known standard controls were substituted by small drillings inside the body. Leakage or damage of the tubes becomes impossible therefore.



A position indicator (3.) is situated on top of the control unit, visible from all sides. By connecting the actuator to 24 V DC respectively 115/230 V AC supply power the GEHAZ 2000 is ready to work. The multi function switch (2.) is covered by a protection cap. The multi function switch can be turned from neutral into open or closed position and the motor-pump unit starts working immediately. It delivers hydraulic fluid through the control and pressurizes the cylinder from the left or the right hand side. Thereby actuator and valve are turned into open or closed position.

The new Fahlke GEHAZ 2000 is provided with integrated electrical limit switches and offers the possibility for remote control operation and signalization at your central control unit. The Fahlke actuator is equipped with a safety valve (1.) and also a drilling with indicator at the actuator extension for the case of stem seal damage of the valve below.

POWER SUPPLY, CONTROL, SIGNALIZATION

The GEHAZ 2000 supply can be effected easily by a 5 x 1,5 mm² cable powered with 24 V DC or 115/230 V AC 60/50 Hz, for signalization and remote control a 12 x 1,5 mm² cable is required.



▼ example of a FAHLKE GEHAZ actuator

ORDERING/MODEL DESIGNATION

GEHAZ - D - 1 - 125 - -

ACTUATOR TYPE

PAZ	(pneumatic actuator)
HAZ	(hydraulic actuator)
GAZ	(gas actuator)
EHAZ	(electro-hydraulic actuator)
GHAZ	(gas over oil actuator)
SEHAZ	(safety-electro-hydraulic actuator)
DEHAZ	(three phase electro-hydraulic actuator)
GEHAZ	(direct current electro-hydraulic actuator)

PAZ	A	1	50	50	HP
HAZ	B	2	80	80	SR
GAZ	C		100	125	HW
EHAZ	D		125	160	BT
GHAZ	E		160		SP
SEHAZ	F		200		SO
DEHAZ	G		250		LBC/E
GEHAZ			300		LBC/P

ACTUATOR SIZE A B C D E F G

CYLINDER QUANTITY 1 or 2

CYLINDER DIAMETER 50 - 600

HYDRAULIC HAND PUMP CYLINDER DIAMETER 50 - 600

SPECIAL EQUIPMENT

HP	(hydraulic hand pump cylinder)
SR	(spring cartridge)
HW	(handwheel)
BT	(battery)
SP	(bladder accumulator)
SO	(solar panel)
LBC/E	(electronic line break system)
LBC/P	(pneumatic line break system)

GEHAZ 2000

Direct Current
Electro-Hydraulic Actuator

When there is no requirement for a short regulating time and a 24 V DC or a 115/230 V AC power supply is available.

FURTHER MODELS OF THE 2000 ACTUATOR FAMILY:

DEHAZ 2000*

Three Phase Current
Electro-Hydraulic Actuator

When there is no requirement for a short regulating time and a 380/440 V AC power supply is available.

SEHAZ 2000*

Safety
Electro-Hydraulic Actuator

For maximum safety and a short regulating time. Power supply: 24 V DC or 115/230 V AC.



► * Please contact us for actuator brochure.

TECHNICAL DATA OF DOUBLE ACTING ACTUATORS

actuator type	break torque (NM)	operating time (sec.)	actuator size L x B x H (mm)	total weight (kg)
GEHAZ-A-1-50	50-200	015*	500 x 200 x 310	25
GEHAZ-B-1-50	200-1000	010/020*	600 x 200 x 360	35
GEHAZ-C-1-80	500-4500	030/060*	800 x 500 x 750	125
GEHAZ-D-1-125	4000-20000	090/180*	1200 x 650 x 750	360
GEHAZ-E-1-125	20000-60000	*	1850 x 1100 x 850	900
GEHAZ-E-2-125	60000-80000	*	2280 x 1100 x 850	1100
GEHAZ-F-2-125	80000-150000	*	3150 x 1200 x 850	1150

* Please contact us for the operating times with your automation data. Shorter operating times can be realized by Fahlke SEHAZ 2000 actuators.

ELECTRICAL DATA

required power	→ 30 - 600 Watt
power supply	→ 115/230 V AC, 50/60 Hz or 24 V DC
limitswitch	→ potentialfree, EEx d IIC
cable requirement	→ 3 x 1,5 mm ² PG 16 12 x 1,5 mm ² PG 21

ADVANTAGES OF THE GEHAZ 2000

- the power consumption of the Fahlke GEHAZ 2000 actuator line is only 1/10 of every comparable electric actuator at the same torque output and stroking time
- motor starting current of the GEHAZ 2000 is much lower than every comparable electric actuator
- the allowed potential drop is much higher than every comparable electric actuator
- the stroking time is adjustable after installation
- spring return function available
- easy adaption to every kind of valve
- the most compact electro-hydraulic actuator generation, explosion proof for all applications
- reduced costs due to smaller supply cable diameter
- bus control available

THE FAHLKE ADAPTION SYSTEM

We offer an **ADAPTION SOLUTION** suitable to your valve.
The flanges and drive sleeves, manufactured according to the top-work drawing of each valve, allow to mount the actuator within a few minutes onto the chosen valve.

