

Gear motor GT 50

Product brochure · GB
3 Edition 11.14



krom
schroder

- Controlled by three-point step signal:
GT 50..E by continuous signal,
GT 50..R by two-point step signal
- Simple commissioning thanks to Automatic/Manual mode changeover
- Position indicator that can be read externally
- Precise setting of the switching positions thanks to infinitely adjustable switching cams
- Installation options for two control elements
- Spacious connection chamber for ease of installation
- Any installation position
- Low-maintenance operation

Application



Gear motor GT 50 is mounted directly onto a butterfly valve, for example, DKR, in order to control the gas and air flow rates on gas burners. It is designed for applications that require precise, controlled rotary movement between 0° and 90° or 0° and 160°.

There are two possible ways of checking the current position of the actuator – either using an optional feedback potentiometer or an optional current sensor. These checking functions can be used in automation processes.

The GT 50 is controlled by a continuous signal or three-point step signal. The Automatic/Manual mode changeover and the position indicator that can be read externally assist in the setting of the infinitely adjustable switching cams upon commissioning. This enables precise settings even in the low-fire rate range.

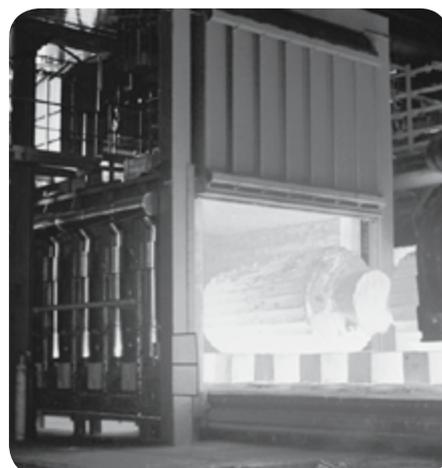
Gear motor GT 50..U is available with reversed direction of rotation for butterfly valves with stop bars, e.g. DKR..A.



Gear motor GT 50 mounted onto butterfly valve DKR



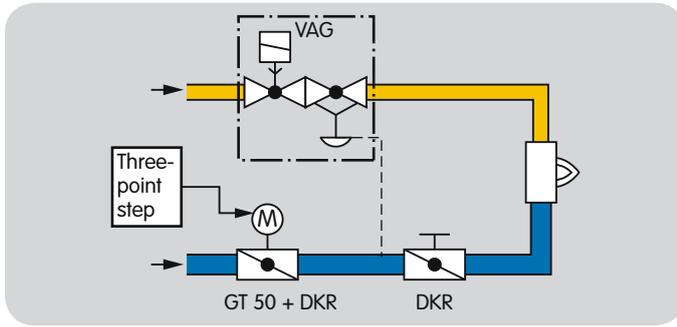
Roller hearth kiln in the ceramics industry



Forging furnace

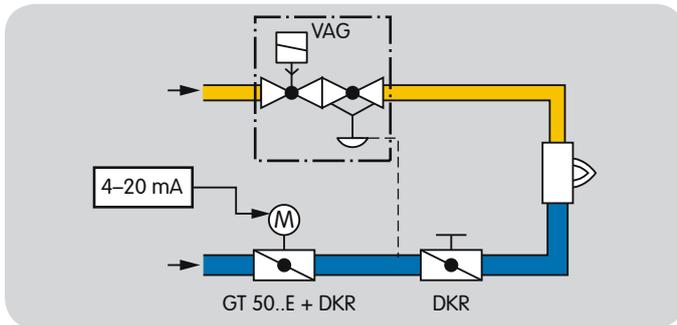
Examples of application

Modulating control via three-point step signal



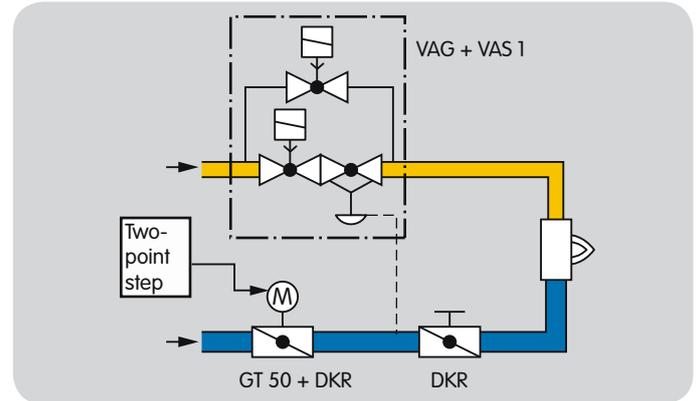
For processes that require high temperature accuracy and low circulation in the furnace. Gear motor GT 50 is controlled by a three-point step controller and moves the butterfly valve DKR to the ignition position. The burner starts. The butterfly valve opens or closes between the low-fire and high-fire rate positions depending on the capacity demand of the burner. When the three-point step signal is disconnected, the butterfly valve stops at its current position.

Modulating control with continuous input signal



Gear motor GT 50..E is controlled via a 4–20 mA, 0–20 mA or 0–10 V signal.

Staged control via two-point step signal



For processes that require a homogeneous temperature distribution in the furnace. Gear motor GT 50 is controlled by a two-point step controller and operates in On/Off or High/Low intermittent mode. The actuator closes when the voltage supply is interrupted.

Technical data

Mains voltage:

220/240 V AC, -15/+10%, 50/60 Hz,
110/120 V AC, -15/+10%, 50/60 Hz,
24 V AC, -15/+10%, 50/60 Hz.

Screw terminals for cables up to 4 mm²
(single core cables) and for cables up to
2.5 mm² with wire end ferrules.

Angle of rotation:

GT 50-03 to GT 50-120: 0–90°, adjustable,
GT 50-06 to GT 50-214: 0–160°, adjustable.

Holding torque = torque.

Electrical connection:

line entrance via 2 × PG 13.5 plastic cable
glands.

Enclosure: IP 54 pursuant to IEC 529.

Safety class: I pursuant to EN 60335.

Ambient and storage temperature:

-20 to +60°C, no condensation permitted.

Weight: 2.6 kg.

GT 50..E

Power consumption:

6.3 VA at 50 Hz, 7.3 VA at 60 Hz.

Feedback output:

max. 500 Ω load impedance.

Input:

4 (0)–20 mA: 50 Ω load impedance,

0–10 V: 150 kΩ input resistance.

Selection

Selection table

	-03 to -214	T	M	H	-1 to -20	E ¹⁾	R ¹⁾	G ¹⁾	U ²⁾
GT 50	●	●	●	●	●	○	○	○	●

Order example

GT 50-214M-20G

¹⁾ If "none", this specification is omitted.

²⁾ Only in conjunction with butterfly valve DKR..A.

● = standard, ○ = available

Maintenance cycles

Gear motor GT 50 suffers little wear and re-
quires little servicing.

We recommend a function check once a year.

Detailed information on this product



<http://docuthek.kromschroeder.com/documents/index.php?folder=203130&lang=en&selclass=6>

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