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Gear Motors
GT, system gastechnic

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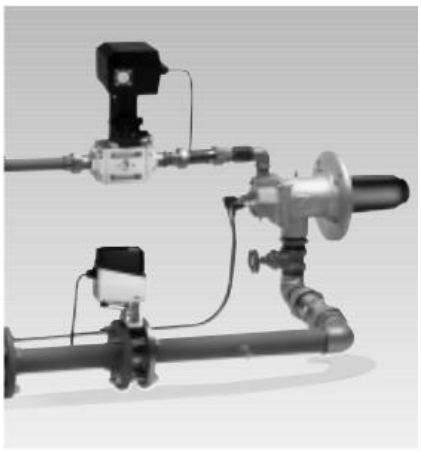
GT 31


GT 50



Gear motors GT

- Actuated via
– three-step signal (standard),
– continuous signal (GT..E) or
– two-point signal (GT..R)
- Simple automatic/manual switching for easy start-up (option)
- Position indicator can be read externally
- Infinitely adjustable switching cams provided as standard, precise setting
- Output via two shafts available as option on GT 50
- Can be fitted in any position
- Maintenance-free operation
- Position check-back signal
- CE

Application

Gear motor GT is ideal for all applications requiring precise and controlled rotary movements between 0 and 90° or 0 and 160°, e.g. actuation of butterfly valves, control fittings, air and flue gas throttles, etc.
For modulating processes, GT 31 or GT 50 with three-point step control is used as standard. The GT..E with continuous signal actuation (e.g. 0 to 20 mA) can also be used. This gear motor has an electronic positioning control for added positioning accuracy.
The two-step GT..R can be used for on/off or high/low burner control.
The GT 31 is suitable for applications up to 3 Nm. Gear motor GT 50 can be used for higher torques up to 20 Nm.

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Function

Gear motor GT moves to 0° or to 90° (160°) when voltage is applied to the related terminal. If the voltage is disconnected, the gear motor remains in the current position. A high holding torque in de-energised state renders additional brake elements superfluous.
On the GT..E, the applied current signal corresponds to the setting angle required(e.g. at 0 to 20 mA, 10 mA corresponds to 50%). The minimum and maximum setting angles and hysteresis can be set with potentiometers.'
Gear motor GT..R remains in 100 % po-sition for as long as mains voltage is applied. When the voltage is disconnected, the gear motor moves automatically to 0 % position.
On all three models, the angle of rotation is limited by means of two infinitely adjust-able switching cams to permit low and high load to be set. External appliances can be actuated or intermediate positions scanned via two additional floating switches (three on the GT 50). An additional reset potentiometer or current sensor (standard on GT..E) offers the option of monitoring the current position of the gear motor.

Technical data

Mains voltage:220 to 240 V AC -15/+10%; 50/60 Hz,110 to 120 V AC -15/+10%; 50/60 Hz or24 V AC -15/+10%; 50/60 Hz.
Protection: IP 54 to IEC 592.Duty cycle: 100%.Protection class: I.
Power consumption:
GT 31: 4,8 VA
GT 50: 11 VA.
Cam contact load:
60 to 250 V, 50/60 Hz, max. 2 A (resistive load)24 V requires special version with gold-plated contacts (GT..G); contact load at30 V: max. 100 mA.
Electrical connection: GT 31: 2.5 mm^2terminal strip, PG 11GT 50: 2.5 mm^2terminal strip, PG 13.5.Holding moment = torque,
on the GT 50, the output can be split over two shafts (see Specification table).Setting angle:0 to 90°, adjustable or0 to 160°, adjustable.
Temperature range: -20 to +60°C.Fitting position: any.
Housing: AlSi.

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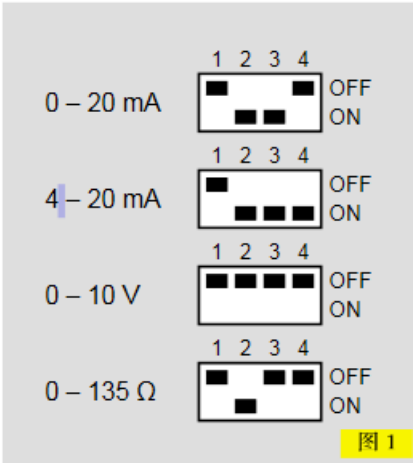
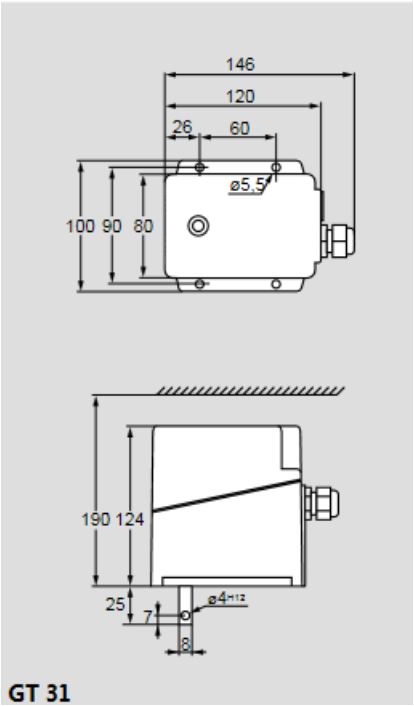
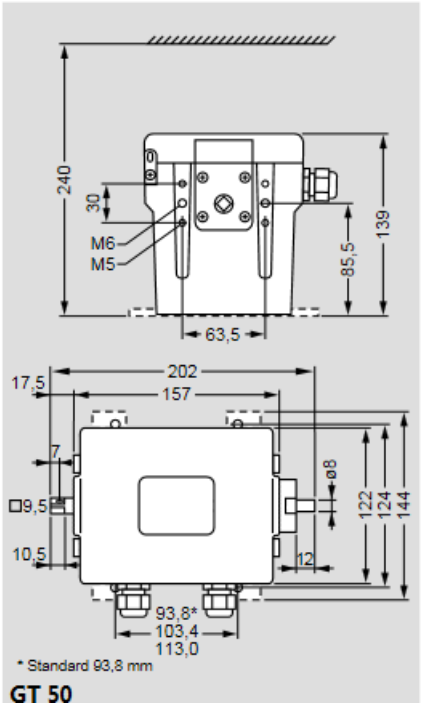


图 1



GT 31



GT 50

GT..E with built-in positioning control. The following signal forms can be processed (Fig. 1):
–0 (4) to 20 mA
–0 to 10 V or
–0 to 135 W.

Input resistance:
0 (4) to 20 mA: 50 Ω(load)
0 to 10 V: 150 kΩ(input resistance).

Specification table

Type	Operating time s/90°	Operating time s / 160°	Torque Nm	Weight kg
GT 31 – 03	3,7		1,2	1,4
GT 31 - 07	7,5		2,5	1,4
GT 31 - 15	15	31,4		
GT 31 - 30	30	31,4		
GT 31 - 60	60	31,4		
GT 50 - 03	3,7		3,7	2,6
GT 50 - 07	7,5		7,5	2,6
GT 50 - 15	15	152,6		
GT 50 - 30	30	202,6		
GT 50 - 60	60	202,6		
GT 50 - 120	120	202,6		
GT 50 - 06		6,5	3,7	2,6
GT 50 - 13		137,5	2,6	
GT 50 - 27		2715	2,6	
GT 50 - 54		5420	2,6	
GT 50 - 107		10720	2,6	
GT 50 - 214		21420	2,6	

* The operating time is reduced to approx. 83% at 60 Hz.
** If, on the GT 50, the output is split over two shafts, the specified value may not be exceeded overall (total).

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Accessories

For cam disk LKS (Fig. 2) for controlling gas/air ratios (mechanical link), as well as levers, linkages and flexible connection elements, see brochure 3.1.7.4

For attachment sets for butterfly valves DKG, DKL and DKR see leaflet DK.

We reserve the right to make technical changes to improve our products without prior notice.

Selection

● Standard
○ Option
-unavailable

	Operating time	T	M	H	Torque	G	Manual–auto	Poti	Current sensor
GT 31		●	○	○		○	○	○	○
GT 31..E		●	○	○		○	●	-	●
GT 31..R	see specification table	●	○	○	see specification table	○	-	-	-
GT 50		●	○	○		○	●	○	○
GT 50..E		●	○	○		○	●	-	●
GT 50..R		●	○	○		○	-	-	-

Type code

GT 31 -	60	T	3	E*	G*	

Type GT 31, GT 50

Operating time

3,7 s/90°= 03	6,5 s/160°= 06
7,5 s/90°= 07	13 s/160°= 13
15 s/90°= 15	27 s/160°= 27
30 s/90°= 30	54 s/160°= 54
60 s/90°= 60	107 s/160°= 107
120 s/90°= 120	214 s/160°= 214

Mains voltage

220/240 V~= T	
110/120 V~= M	
24 V~ = H	

Torque

1,2 Nm = 1	3,7 Nm = 4	20 Nm = 20
2,5 Nm = 2	7,5 Nm = 7	
3 Nm = 3	15 Nm = 15	

Continuous control= E*Two-point control= R*

Additional switch with gold-plated contacts= G*

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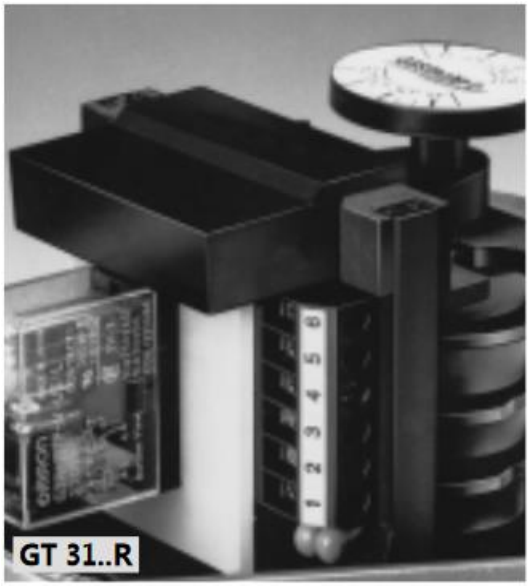
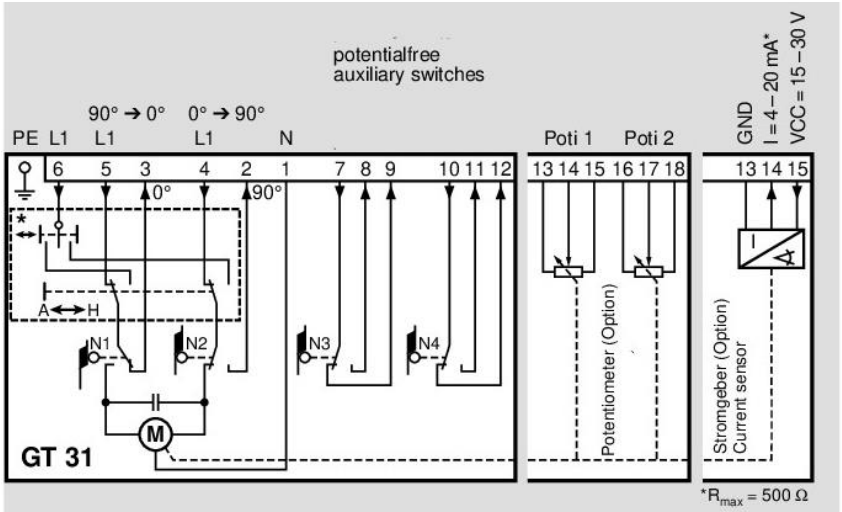
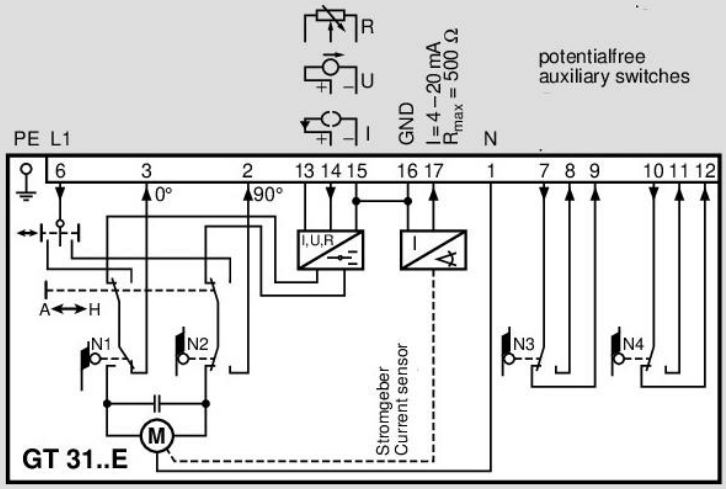
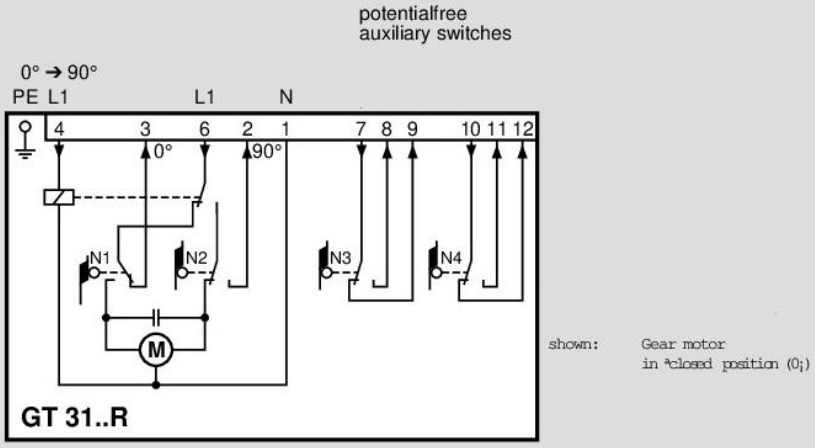


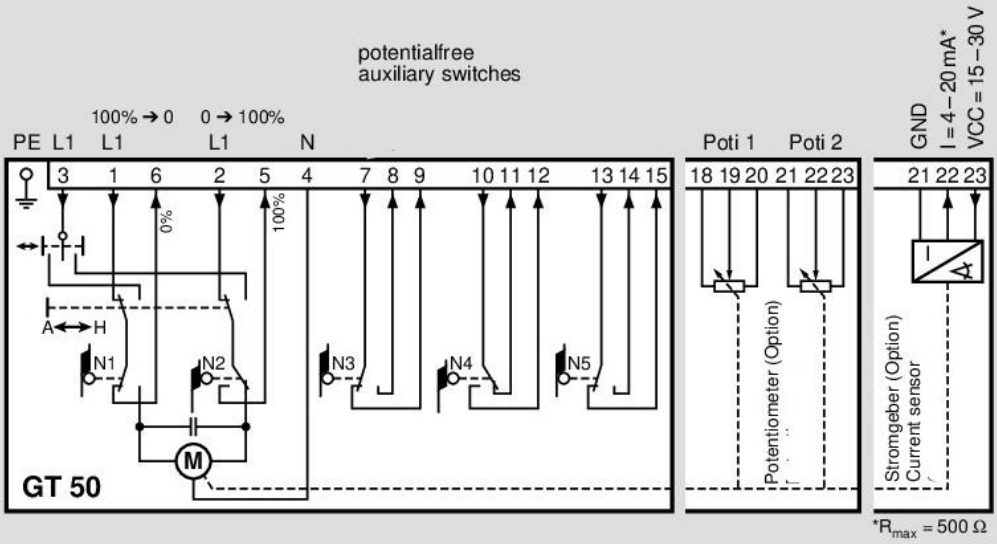
Electr. Connections

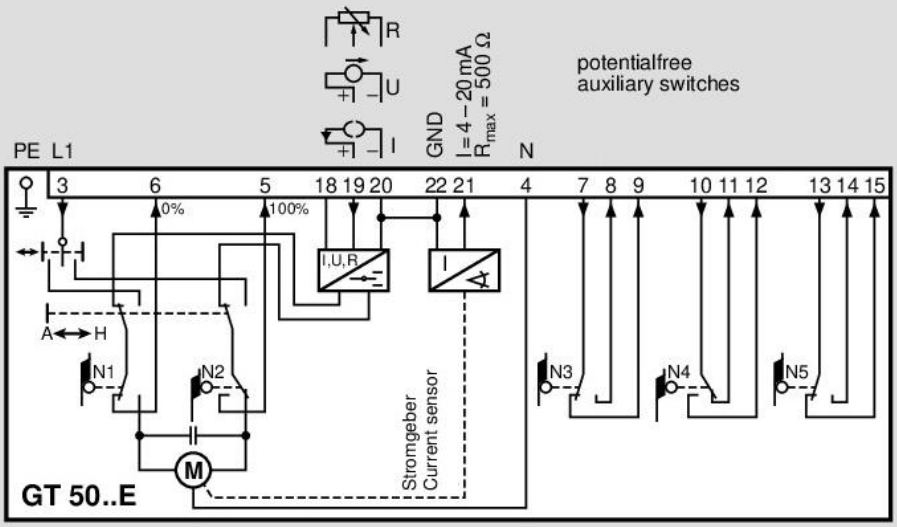


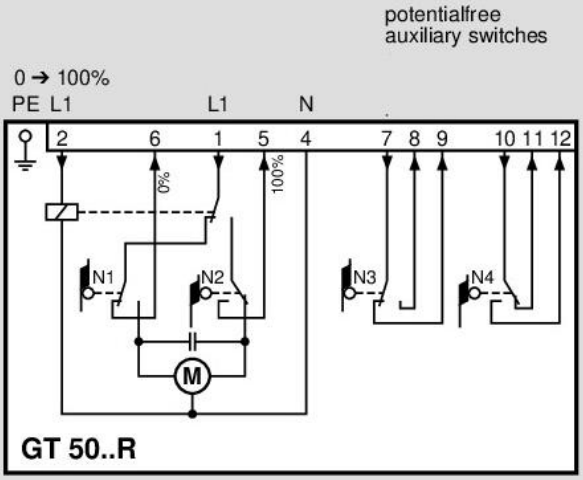
* Option: service switch











shown: Gear motor
in "closed position (0;)

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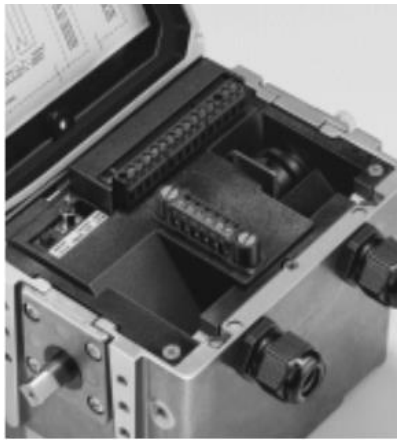
krom schroder


图 3


图 4


图 5



Accessories

Type	for gear motor	Weight kg	Order code fitted	Order code in accessory pack
Potentiometer kit for report of current position of gear motor (Fig. 4)				
1 x 100 Ω	GT 31	0,1	26072210	26002210
1 x 150 Ω	GT 31	0,1	26072220	26002220
1 x 250 Ω	GT 31	0,1	26072230	26002230
1 x 500 Ω	GT 31	0,1	26072240	26002240
1 x 1000 Ω	GT 31	0,1	26072250	26002250
1 x 2500 Ω	GT 31	0,1	26072260	26002260
2 x 1000 Ω	GT 31	0,1	26072350	26002350
1 x 100 Ω	GT 50 (90°)	0,1	26300500	–
1 x 150 Ω	GT 50 (90°)	0,1	26300510	–
1 x 250 Ω	GT 50 (90°)	0,1	26300520	–
1 x 500 Ω	GT 50 (90°)	0,1	26300540	–
1 x 1000 Ω	GT 50 (90°)	0,1	26300550	–
1 x 2500 Ω	GT 50 (90°)	0,1	26300560	–
2 x 1000 Ω	GT 50 (90°)	0,1	26301100	–
1 x 100 Ω	GT 50 (160°)	0,1	26301470	–
1 x 150 Ω	GT 50 (160°)	0,1	26301480	–
1 x 250 Ω	GT 50 (160°)	0,1	26301490	–
1 x 500 Ω	GT 50 (160°)	0,1	26301510	–
1 x 1000 Ω	GT 50 (160°)	0,1	26301520	–
1 x 2500 Ω	GT 50 (160°)	0,1	26301530	–
2 x 1000 Ω	GT 50 (160°)	0,1	26301540	–
Service switch for manual operation when starting up and for maintenance (Fig. 3).				
	GT 31	0,1	26072500	26002500
Service switch with potentiometer (Fig. 3+4				
1 x 100 Ω	GT 31	0,1	26072510	26002510
1 x 150 Ω	GT 31	0,1	26072520	26002520
1 x 250 Ω	GT 31	0,1	26072530	26002530
1 x 500 Ω	GT 31	0,1	26072540	26002540
1 x 1000 Ω	GT 31	0,1	26072550	26002550
1 x 2500 Ω	GT 31	0,1	26072560	26002560
2 x 1000 Ω	GT 31	0,1	26072650	26002650
Current sensor kit (4 to 20 mA) for report of current position of gear motor. (Fig. 5)				
	GT 31	0,1	26072710	26002710
	GT 50 (90°)	0,1	26301580	–
	GT 50 (160°)	0,1	26301590	–
Service switch with current sensor 4 to 20 mA (Fig. 3+5)				
	GT 31	0,1	26072720	26002720
Mounting lugs for base mounting				
	GT 50	0,3	26371050	26301050