

## General information

- Single source for top service and advanced expertise
- Phone list, Freight charges, Repair charges
- Load diagram, tubes conforming DIN 2248
- Protection classes according to EN 60529

## ELEKTROMATEN SI Safedrive®

with integrated safety brake

- For roller shutters, rolling grilles, non-balanced sectional doors, vertically lifted doors, high-speed rolling doors, which require an anti-fallback device

## ELEKTROMATEN KE Chain drive

- For roller shutters, rolling grilles, and vertically lifted doors

## ELEKTROMATEN SE Sectional door-drive

- For counterbalanced sectional doors

## ELEKTROMATEN ST Sliding-door-drive

- For Sliding doors

## ELEKTROMATEN Special drives

- ELEKTROMATEN comply to ATEX (SI, KE, SE-ELEKTROMATEN)
- FS-ELEKTROMATEN for fire door-drive
- FT-ELEKTROMATEN for folding doors

## Safety brakes

- For doors which requiring an anti-fallback device

## Control panels

- For ELEKTROMATEN with
- Mechanical limit NES
  - Digital limit DES

## Accessories/ spare parts

- Safety devices
- Accessories
- Spare parts

0

1

2

3

4

5

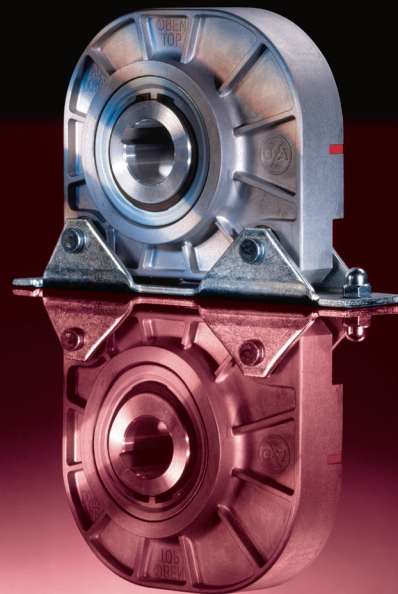
6

7

8

## Safety brakes

For doors which requiring an anti-fallback device  
in combination with ELEKTROMATEN KE



### FG 40-30 - FG 120-50

Output torque: 400 - 1,200 Nm

### Gr. 4

Output torque: 2,000 Nm

Data sheet

6.11

6.21

Price list

6.29

6.29

# Safety brake

FG 40-30  
FG 80-40  
FG 120-50

Anti-fallback device for all rising loads to be prevented from falling back

## Approvals and certificates

Certificate of conformity according to DIN EN 12604/12605

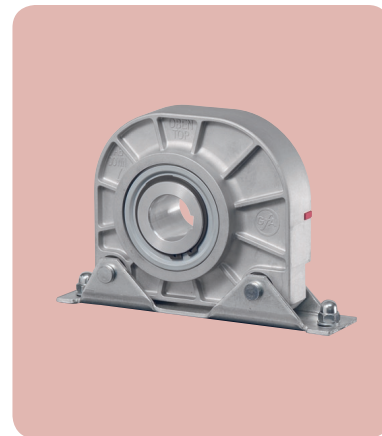


## General description

- Compact design, with same outer dimensions for all sizes
- Visual indication of the triggering mechanism provided by a plunger:
  - A = operating position
  - B = braking position, direction AB (CLOSE) is locked
- max. operating speed 24 rpm
- Switch for safety circuit in protection class IP65
- Floating foot
- Horizontal installation position
- Dependent on the direction of rotation

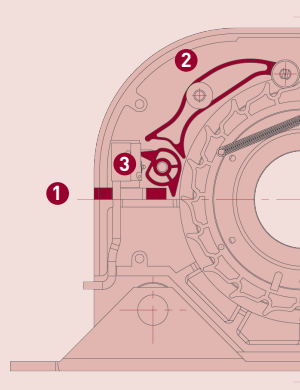
## Description of functions

- Locking catch and locking wheel (triggering mechanism) trigger the braking action if the max. operation speed is exceeded.
- The special tooth geometry of the ratchet wheel reduces reaction time, and thus the braking distance.
- The structure is only subject to extremely low braking moments.
- The safety brake is maintenance-free and self-controlling.



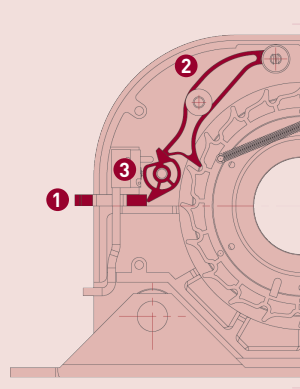
## A = operating position

- 1 Plunger close to the housing
- 2 Locking catch free
- 3 Safety switch free



## B = braking position

- 1 Plunger away from the housing
- 2 Locking catch actuated
- 3 Safety switch actuated



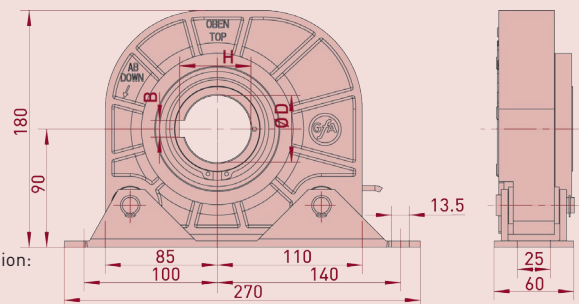
## 1. Technical data

Safety brake		FG 40-30	FG 80-40	FG 120-50
Max. torque	Nm	400	800	1200
Max. operation speed	rpm	24	24	24
Hollow-shaft Ø	mm	30	40	50
Locking torque <sup>1</sup>	Nm	1150	2260	3530
Safety brake (approval number)		TorFV 3 / 009	TorFV 3 / 009	TorFV 3 / 009
Temperature range	°C	-20 / +60	-20 / +60	-20 / +60
Protection class	IP	65	65	65
Weight	kg	3,5	3,5	3,5
Part no. installation drawing (dxf, dwg)		50000724	50000724	50000724
Part no. safety brake		10002270.00001	10002271.00001	10002272.00001
Part no. safety brake (ATEX-T3)		10002532.00001	10002533.00001	10002534.00001

<sup>1</sup> Please refer to note in section 4.2

## 2. Dimensions

■ Permitted position of installation:  
Horizontal (as shown),  
observe direction of rotation



Safety brake	Ø D	B	H
FG 40-30	30	8	33,3
FG 80-40	40	12	43,3
FG 120-50	50	14	53,8

## 3. Selection chart

Safety brake	tube Ø	Door width Door height	3000		5000			7000		
			3000	5000	3000	5000	7000	3000	5000	7000
FG 40-30	133,0		4728	3875	4701	3853	3853	4446	3831	--
	159,0		4244	3584	4202	3549	3549	4161	3514	--
	177,8		3884	3352	3818	3294	3294	3751	3236	--
FG 80-40	159,0		7208	6060	7167	6026	5199	--	--	--
	177,8		6637	5703	6571	5646	4928	6505	5590	--
	193,7		6173	5401	6087	5326	4694	6001	5250	--
	219,0		5470	4921	5348	4811	4308	5226	4701	--
	244,5		4821	4452	4658	4302	3911	4495	4151	--
FG 120-50	159,0		11730	9912	--	--	--	--	--	--
	177,8		10816	9339	10751	9283	8135	--	--	--
	193,7		10077	8859	9992	8784	7773	9906	8709	7707
	219,0		8965	8101	8844	7991	7183	8723	7882	7085
	244,5		7947	7369	7786	7219	6588	7624	7069	6451
	273,0		6937	6606	6737	6415	5949	6536	6225	5772

■ Door weights in N ■ Dimensions in mm ■ Extract from TÜV-reports

## 4. Notes

### 4.1 European directive

In accordance with the product standard DIN EN 13241-1 Doors- and DIN EN 12453 Safety in use of power operated doors-requirements to be observed.

### 4.2 Locking torque

The locking torque must not exceed the admissible loads on mechanical components such as fixing elements, shafts, keys etc.

Subject to measurement and design revisions.

# Safety brake with damping bare

Anti-fallback device for all rising loads to be prevented from falling back

Gr. 4

## Approvals and certificates



Certificate of conformity according to DIN EN 12604/12605

## General description

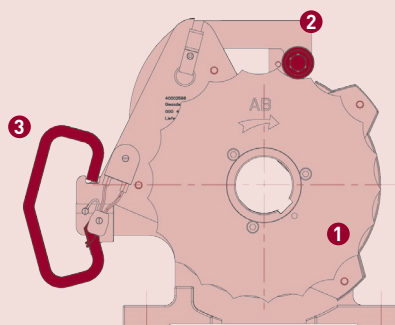
- Safety brake with damping bare
  - A = operating position
  - B = braking position, direction AB (CLOSE) is locked
- max. operating speed 15 rpm
- Switch for safety circuit carries protection rating IP44
- Horizontal installation position
- Dependent on the direction of rotation
- Multiple use thanks replaceable damping bare



## Description of functions

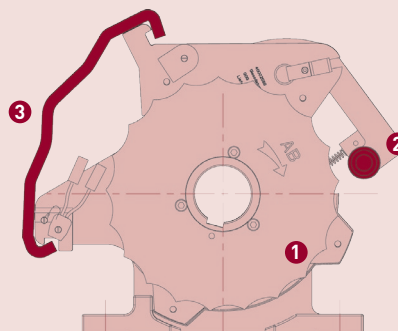
- The ratchet wheel and control wheel are permanently joined together, both being driven by the shaft.
- Up to max. operating speed, the pawl with the scanning roll is moved up and down by the control wheel.
- If the operation speed is exceeded, the scanning roll lifts and the pawl grips into the teeth of the ratchet wheel.
- The shaft is slowed down by the damping bare, and the fall energy arising is absorbed by the damping bare into bending energy.
- Excellent damping characteristics in operation, the structure is only subject to extremely low braking moments.
- The catch mechanism is maintenance-free and self-controlling.

## A = operating position



- ① Control wheel with ratchet wheel
- ② Pawl with scanning roll free
- ③ Damping bare

## B = braking position



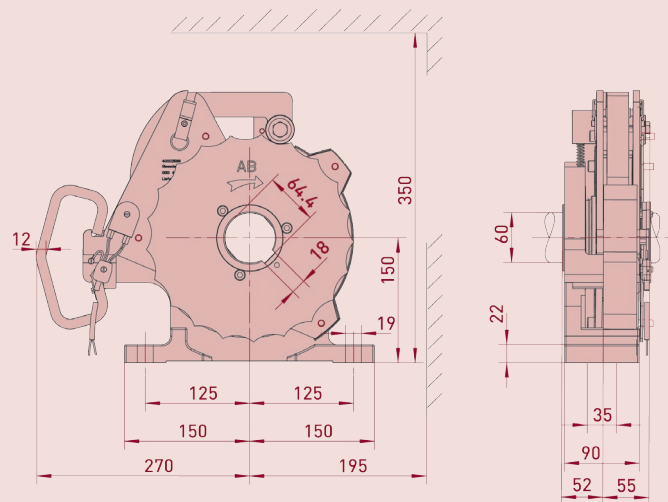
- ① Control wheel with ratchet wheel
- ② Pawl with scanning roll actuated
- ③ Damping bare actuated

## 1. Technical data

Safety brake		Gr. 4
Max. torque	Nm	2004
Max. operation speed	rpm	15
Hollow-shaft Ø	mm	60
Locking torque <sup>1</sup>	Nm	6454
Safety brake (approval number)		TorFV 4 / 022
Temperature range	°C	-5 / +40
Protection class	IP	44
Weight	kg	29
Part no. installation drawing (dxf, dwg)		50000907
Part no. safety brake		10000285.00001

<sup>1</sup> Please refer to note in section 4.2

## 2. Dimensions



- Permitted position of installation:  
Horizontal (as shown), observe direction of rotation

## 3. Selection chart

Safety brake	tube-Ø	Door width	5000			7000			11000		
			Door height	3000	6000	9000	3000	6000	9000	3000	7000
Gr. 4	177,8		16000	15000	14000	7000	7000	7000	--	--	--
	193,7		15800	14800	13800	10000	10000	10000	--	--	--
	219,0		15400	14500	13500	14500	14500	14500	--	--	--
	244,5		14750	1400	13134	14750	14215	13134	12107	12107	12107
	273,0		13231	12750	12281	13231	13022	12281	13140	12600	12500
	298,5		12058	11750	11504	12058	11979	11504	11935	11500	11000

- Door weights in N
- Dimensions in mm
- Extract from TÜV (German Technical Supervisory Authority) reports

## 4. Notes

### 4.1 European directive

In accordance with the product standard DIN EN 13241-1 Doors- and DIN EN 12453 Safety in use of power operated doors-requirements to be observed.

### 4.2 Locking torque

The locking torque must not exceed the admissible loads on mechanical components such as fixing elements, shafts, keys etc.

Price list valid from 01.2007 for

# Safety brakes

**FG 40-30**  
**FG 80-40**  
**FG 120-50**  
**Gr. 4**

Versions according to page 6.11 - 6.12 and 6.21 - 6.22  
 All prices in € net/unit

## 1. Safety brakes

Safety brake	Max. torque Nm	Max. output speed rpm	Hollow-shaft Ø mm	Part no.	Standard price
FG 40-30	400	24	30	10002270.00001	
FG 80-40	800	24	40	10002271.00001	
FG 120-50	1.200	24	50	10002272.00001	
Gr. 4	2.004	15	60	10000285.00001	
<b>Explosion proof class EEx</b>					
FG 40-30 II 2G c IIc T3 <sup>1</sup>	400	24	30	10002532.00001	
FG 80-40 II 2G c IIc T3 <sup>1</sup>	800	24	40	10002533.00001	
FG 120-50 II 2G c IIc T3 <sup>1</sup>	1.200	24	50	10002534.00001	

<sup>1</sup> Temperature class T4 available on request

## 2. Mechanical accessories

	Description	Part no.	€ net/unit
2.1	Shafts S355J2G3C+C (EN 10277-2)	Type B (with key)	
		Ø30mm, L=520mm für FG 40-30	30003002
		Ø40mm, L=520mm für FG 80-40	30003003
		Ø50mm, L=600mm für FG 120-50	30003004
		Ø60mm, L=600mm für Gr. 4	30003005
2.2	Replacement damping bare for safety brake size	Gr. 1 (up to 1997)	30000159
		Gr. 2 (up to 1997)	30000160
		Gr. 3 (up to 1997)	30000161
		Gr. 4	30000162

Additional shafts, discs, bearings, as in page 8.31