

# Safety brakes FG

FG 40-30  
FG 40-31,75  
FG 40-35  
FG 80-40  
FG 120-50

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

## General description

- Compact design with the same outer dimensions for all sizes
- Visual indication of the triggering mechanism provided by a plunger:
  - **A** = Operating position
  - **B** = Braking position
- Max. operating speed OPEN up to 45 rpm
- Switch for safety circuit in protection class IP65
- Floating foot for horizontal installation
- Dependent on the direction of rotation
- Maintenance-free and self-controlling

## 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.

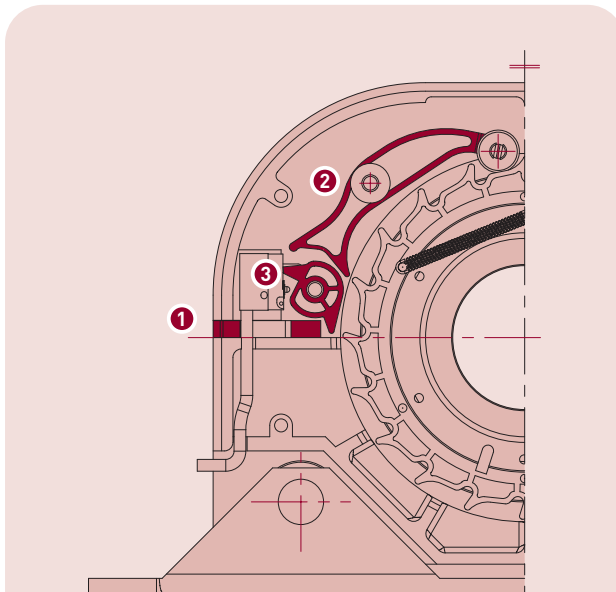
## Approvals and certificates

Certificate of conformity to DIN EN 12604/12605  
Certificate no.: TorFV 3/009  
Test report: 24034382

TÜV SÜD  
Industrieservice GmbH

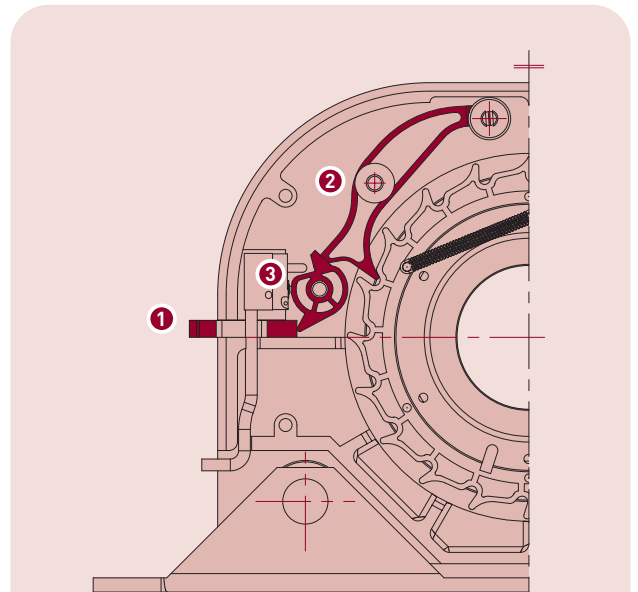


## **A** = Operating position



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

## **B** = Braking position



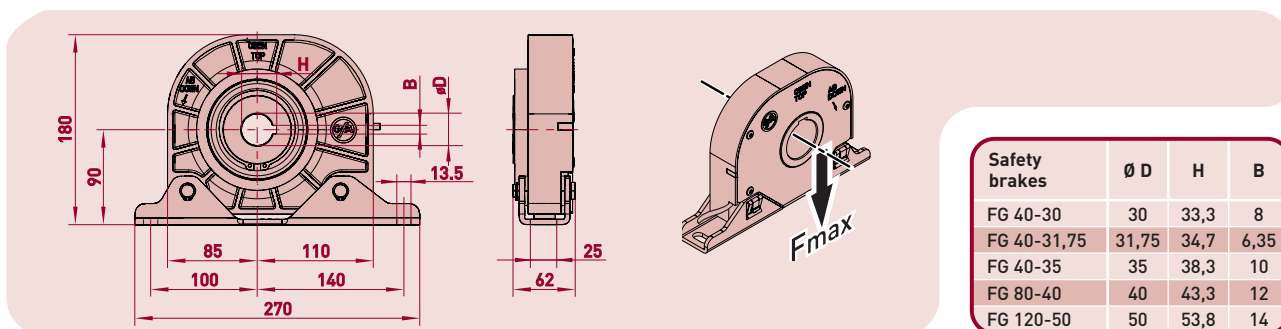
- 1 Plunger away from the housing
- 2 Locking catch actuated
- 3 Safety switch actuated

## 1. Technical data

Safety brakes		FG 40-30	FG 40-31,75	FG 40-35	FG 80-40	FG 120-50
Max. torque	Nm	400	400	400	800	1200
Max. operating speed OPEN / CLOSE	rpm	45 / 24 (24 / 24) <sup>1</sup>	45 / 24 (24 / 24) <sup>1</sup>	45 / 24	45 / 24 (24 / 24) <sup>1</sup>	45 / 24 (24 / 24) <sup>1</sup>
Hollow-shaft Ø	mm	30	31,75	35	40	50
Locking torque <sup>2</sup>	Nm	1150	1150	1150	2260	3530
Safety brake (approval number)		TorFV 3 / 009	TorFV 3 / 009	TorFV 3 / 009	TorFV 3 / 009	TorFV 3 / 009
Admissible bearing load $F_{max}$ <sup>3</sup>	N	3000	3000	3000	4500	6000
Temperature range	°C	-20..+60 [-20..+40] <sup>1</sup>	-20..+60 [-20..+40] <sup>1</sup>	-20..+60	-20..+60 [-20..+40] <sup>1</sup>	-20..+60 [-20..+40] <sup>1</sup>
Degree of protection	IP	65	65	65	65	65
Weight	kg	4,1	3,8	3,9	3,9	3,9
Part no. installation drawing (dxf, dwg)		50000724	50000724	50000724	50000724	50000724
Part no. safety brakes		10002270.00001	10004064.00001	10002526.00001	10002271.00001	10002272.00001
Part no. safety brakes (ATEX-T3) <sup>1</sup>		10002532.00001	10005266.00001	--	10002533.00001	10002534.00001

<sup>1</sup> ATEX → II 2G Ex h IIC T3 Gb · <sup>2</sup> See 4.2 · <sup>3</sup> See 2.

## 2. Dimensions



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

## 3. Selection chart

Safety brakes	Tube-Ø [mm]	Door width Door height	3000 [mm]		5000 [mm]			7000 [mm]		
			3000	5000	3000	5000	7000	3000	5000	7000
FG 40-30	133,0		4728	3875	4701	3853	3853	4446	3831	--
FG 40-31,75	159,0		4244	3584	4202	3549	3549	4161	3514	--
FG 40-35	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 ■ Extract from TÜV-reports

## 4. Notes

### 4.1 European directive

In accordance with the product standard EN 13241 Doors - and 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.

# Safety brakes FG

FG 220-60  
FG 220-65  
FG 360-80

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

## General description

- Compact design with the same outer dimensions for all sizes
- Visual indication of the triggering mechanism provided by a plunger:
  - **A** = Operating position
  - **B** = Braking position
- Max. operating speed OPEN up to 27 rpm
- Switch for safety circuit in protection class IP65
- Floating foot for horizontal installation
- Dependent on the direction of rotation
- Multiple use because of the replaceable damping plates possible
- Maintenance-free and self-controlling



## Description of functions

- The release apparatus consist of the pawl and ratchet wheel. If the operation speed is exceeded, the pawl grips into the teeth of the ratchet wheel and releases the catching act. The control voltage will then be interrupted.
- The special tooth geometry of the ratchet wheel reduces reaction time, and thus the braking distance.
- The released energy is absorbed by the damping plates. Because of the excellent damping characteristics while catching, the structure is only subject to extremely low braking moments.

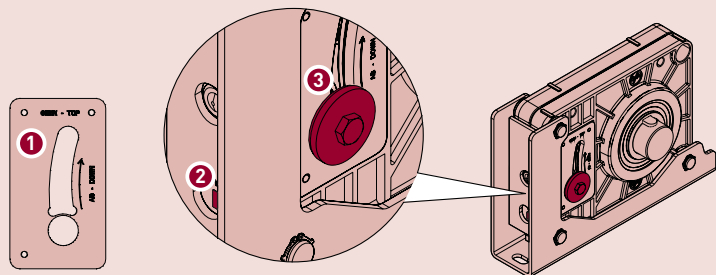
## Approvals and certificates

Certificate of conformity to DIN EN 12604 / 12605  
Test report: 240 43 819  
ift Rosenheim GmbH



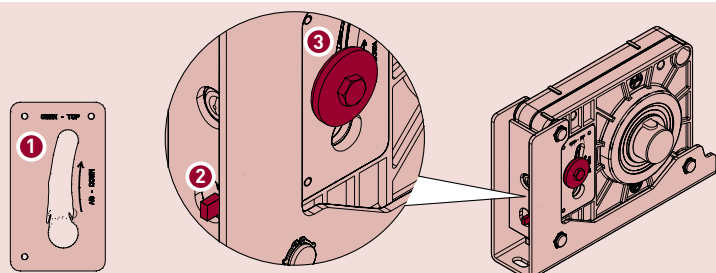
## **A** = Operating position

- 1 Undamaged damping plate
- 2 Plunger close to the housing / Safety switch free
- 3 Locking catch in operating position



## **B** = Braking position

- 1 Damping plate after the case of catching (replacing necessary)
- 2 Plunger away from the housing / Safety switch actuated
- 3 Locking catch actuated

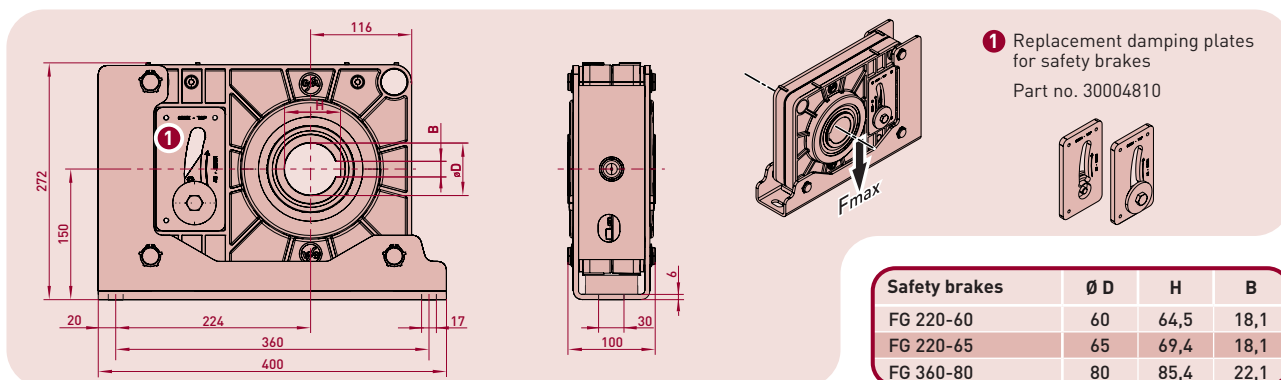


## 1. Technical data

Safety brakes		FG 220-60	FG 220-65	FG 360-80
Max. torque	Nm	2200	2200	3600
Max. operating speed OPEN / CLOSE	rpm	27 / 15	27 / 15	27 / 15
Hollow shaft Ø	mm	60	65	80
Locking torque <sup>1</sup>	Nm	6691	6691	10260
Safety brake (approval number)		240 43819	240 43819	240 43819
Admissible bearing load $F_{max}$ <sup>2</sup>	N	10000	15000	15000
Temperature range	°C	-20 / +60	-20 / +60	-20 / +60
Degree of protection	IP	65	65	65
Weight	kg	19,5	16,5	20,3
Part no. installation drawing (dxf, dwg)		50001517	50001518	50001518
Part no. safety brakes		10003911.00001	10003913.00001	10003912.00001

<sup>1</sup> See 4.2 · <sup>2</sup> See 2.

## 2. Dimensions



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

## 3. Selection chart

Safety brakes	Tube-Ø [mm]	Door width [mm]								
		6000	7000	8000	9000	10000	11000	12000	14000	16000
FG 220-60 FG 220-65	244,5 x 6,3	15000	15000	12600	-	-	-	-	-	-
	273,0 x 6,3	13600	13600	13600	13600	13300	-	-	-	-
	298,5 x 7,1	12500	12500	12500	12500	12500	11400	-	-	-
	323,9 x 7,1	11600	11600	11600	11600	11600	11600	11600	-	-
	368,0 x 8,0	10200	10200	10200	10200	10200	10200	10200	10200	-
FG 360-80	244,5 x 6,3	24700	17300	-	-	-	-	-	-	-
	273,0 x 6,3	22200	22200	18300	-	-	-	-	-	-
	298,5 x 7,1	20000	20000	20000	20000	15500	-	-	-	-
	323,9 x 7,1	18900	18900	18900	18900	18900	15800	11900	-	-
	368,0 x 8,0	16800	16800	16800	16800	16800	16800	16800	12800	-
	406,4 x 8,8	15300	15300	15300	15300	15300	15300	15300	15300	12200
	419,0 x 10,0	14900	14900	14900	14900	14900	14900	14900	14900	14900

■ Door weights in N

## 4. Notes

### 4.1 European directive

In accordance with the product standard EN 13241 Doors- and 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.