

# ROBA<sup>®</sup>-twinstop<sup>®</sup>

The perfect elevator brake  
for compact drives



The  
**No. 1**  
for elevator  
brakes



*The reliable double brake acc. EN 81*

- *Maximum safety due to redundancy*
- *Extremely short design*
- *Virtually silent due to mayr<sup>®</sup> noise damping*
- *Cost-effective*
- *Easy installation*

**mayr<sup>®</sup>**  
your reliable partner

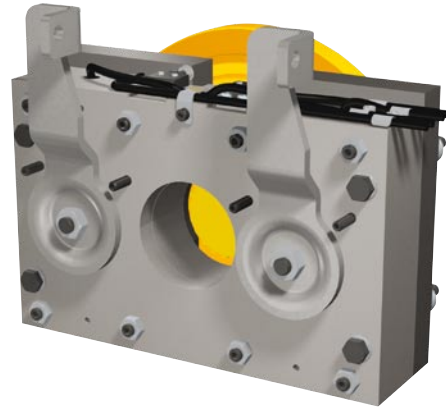
[www.mayr.de](http://www.mayr.de)

P.8012.V03.GB

**ROBA®-twinstop®**  
**The doubled safety brake for elevator drives and stage technology**

*Performance Characteristics*

- **Maximum safety due to two independent brakes acc. EN81**
- **Also suitable as protection against excessive upwards speeds when fitted with release monitoring (prototype inspection applied for ABV 845)**
- **Exceptionally short design**
- **Cost-effective, redundant elevator brake**
- **Brakes can be individually subjected to an electrical inspection**
- **Mounting the encoder does not lengthen the construction or add further parts**
- **Installation of microswitches for function monitoring possible**
- **Easy installation**
- **No air gap adjustment necessary**
- **Virtually silent due to patented mayr® noise damping**
- **Brake release via rotating hand release for Bowden cable is a possible option (hand release lever on request)**



Rotating hand release for Bowden cable  
 Type 8012.\_\_\_2\_3

**Design**

The ROBA®-twinstop® consists of a compact brake block with two independent brake circuits which is fixed to the motor using four screws. In comparison to brake systems with brakes, which are positioned behind each other, it has an extremely short construction length. Even the addition of a compact encoder does not alter this length, as it is located in the central bore (Dimension D).

**Function**

The redundant electromagnetic safety brake ROBA®-twinstop® is spring applied. If the power is switched off, or on power failure / EMERGENCY STOP, the brake ensures reliable and secure stops in any position.

**Simple installation**

The compact design ensures easy handling and installation. The working air gap is pre-adjusted and requires no further adjustment. This effectively prevents malfunctions which could otherwise be caused by operational and adjustment mistakes.

**Function monitoring**

We are happy to equip the ROBA®-twinstop® with a release monitoring per brake circuit for functional checks on both brakes should our customers require it. This provides maximum safety for both the system and the personnel.

**Maintenance-free**

The ROBA®-twinstop® is mainly maintenance-free. The maintenance work consists only of friction lining inspections. These friction linings are exceptionally wear-resistant and achieve, therefore, a particularly long service lifetime.

**Virtually silent**

ROBA®-twinstop® brakes switch extremely quietly due to the patented mayr® noise damping system.

**Order number**

Basic Type	0		0	Basic Type
	1		1	With release monitoring
with rotating hand release for Bowden cable <sup>5) 7)</sup>	2		2	With wear monitoring <sup>5)</sup>
			3	With release and wear monitoring <sup>5)</sup>

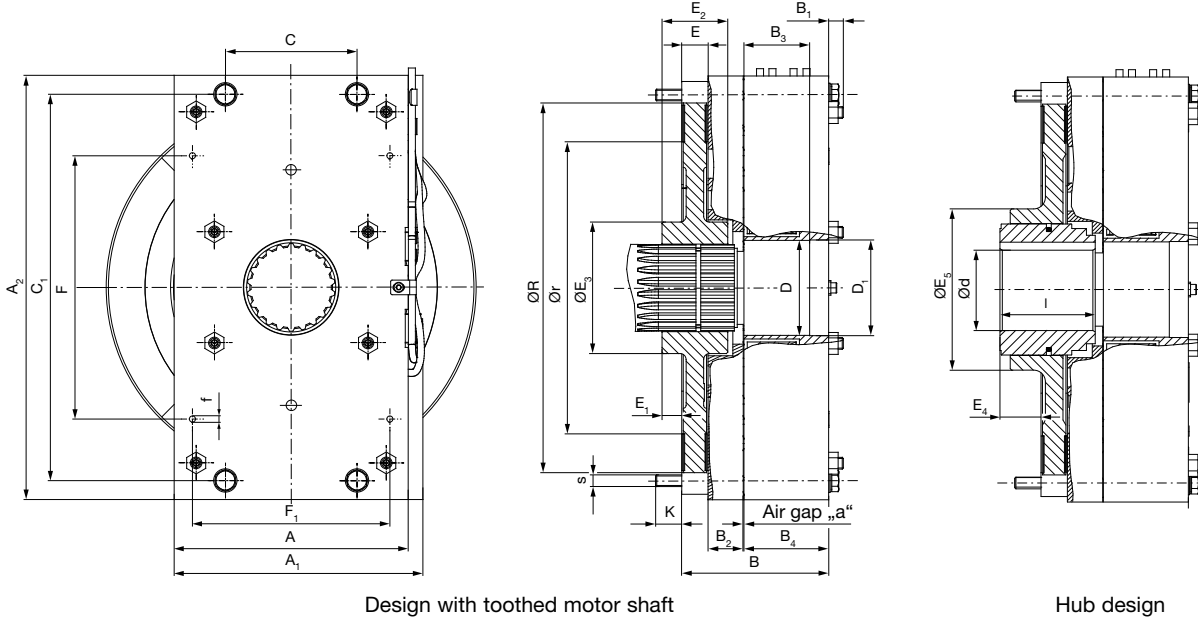
	8	0	1	2	.	—	—	—	3	/	—	/	—
	▲		▲	▲					▲		▲		

<b>Sizes</b>	Nominal braking torque 100 % <sup>7)</sup>	0	0	Basic Type for toothed motor shaft	Braking torque (see Techn. Data page 3)	Coil voltage <sup>8)</sup>
<b>150</b>	Braking torque increased <sup>7)</sup>	1				24, 104, 180, 207
<b>up to</b>	Braking torque increased with overexcitation <sup>5) 7)</sup>	2	1	With hub		[V DC]
<b>350</b>	Braking torque reduced <sup>7)</sup>	3				

2 Example: 250 / 8012.00013 / 2 x 250 Nm / 207 V DC

ROBA®-twinstop® Type 8012. \_ \_ \_ 3

Sizes 150 up to 350



Design with toothed motor shaft

Hub design

Dimensions	Size			
	150	200	250	350
A	160	160	160	200
A <sub>1</sub>	170	170	170	210
A <sub>2</sub>	250	290	290	300
B	90,6	90,6	100,6	100,6
B <sub>1</sub>	12	12	12	12
B <sub>2</sub>	24,1	24,1	24,1	24,1
B <sub>3</sub>	35	35	45	45
B <sub>4</sub>	48	48	58	58
C	94	90	90	120
C <sub>1</sub>	224	264	264	272
DIN 5480 <sup>1)</sup>	60 x 2,5 x 22	60 x 2,5 x 22	65 x 3 x 20	65 x 3 x 20 **
d <sub>preferred bore</sub> <sup>*)</sup>	40	56	56	56
d <sub>max</sub>	55	60	60	60
D	65	65	65	65
D <sub>1</sub>	65,5	65,5	65,5	65,5
E	18	18	18	18
E <sub>1</sub>	5	5	13,5	17
E <sub>2</sub>	38	41	45	52
E <sub>3</sub>	90	90	110	110
E <sub>4</sub>	21	28	28	28
E <sub>5</sub>	90	110	110	110
F	146	180	180	200
F <sub>1</sub>	135	135	135	185
f	4 x M5 (6 deep)	4 x M5 (8 deep)	4 x M5 (8 deep)	4 x M5 (8 deep)
K	18	18	18	17
l	50	65	65	65
r	180	180 / 200 <sup>2)</sup>	200	208
R	223	235 / 253 <sup>2)</sup>	253	273
s	4 x M8	4 x M8	4 x M8	4 x M10

- 1) Directly toothed motor shaft  
Type 8012.\_0\_ \_3
- 2) For design with hub Type 8012.\_1\_ \_3
- 3) Possible without overexcitation < 65 dB (A)
- 4) Operation with overexcitation required.  
Conditionally suitable for applications in elevator and stage technology - Please contact our manufacturing site if applicable!
- 5) Available on request
- 6) We recommend connection to smoothed DC voltage respectively a *mayr*®-bridge rectifier.
- 7) In connection with overexcitation and / or reduced braking torques and a fixed-installed mechanical release, use of a wear monitoring device may be necessary. - Please contact our manufacturing site if applicable.

<sup>\*)</sup> **Danger:** In particular for small shaft diameters, you may be required to submit a strength verification for the shaft end to the TÜV (Technical Inspectorate)!

<sup>\*\*)</sup> > 410 Nm toothings

Technical Data				Size			
				150	200	250	350
Nominal braking torque <sup>3)</sup>	Type 8012.0_ _ _ 3	M <sub>Nom</sub>	[Nm]	2 x 150	2 x 200	2 x 250	2 x 350
Increased braking torque without overexcitation	Type 8012.1_ _ _ 3	M	[Nm]	-	-	2 x 280	2 x 410
Increased braking torque with overexcitation <sup>4)</sup>	Type 8012.2_ _ _ 3	M	[Nm]	Available on request			
Reduced braking torque	Type 8012.3_ _ _ 3	M	[Nm]	2 x 120	2 x 160	2 x 230	2 x 300
		M	[Nm]	2 x 90	2 x 120	2 x 210	2 x 250
Electrical nominal power	Type 8012.0_ _ _ 3	P <sub>20</sub>	[W]	2 x 68	2 x 63	2 x 79	2 x 82
Weight (without hub)			[kg]	20,1	23,7	26,8	34,6
Maximal speed		n <sub>max</sub>	[rpm]	1000	1000	1000	1000
Nominal air gap (Tolerance + 0,2/-0,05)		a	[mm]	0,45			

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