



*your reliable partner*

## ROBA®-servostop®

**Safety brakes  
for servomotors**



P.898000.V01.EN

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

## ROBA®-servostop®

### The perfect safety brake for your servomotors

#### Characteristics and advantages

- Can be used up to 120 °C
- High permitted friction work
- High performance density
- Low mass moment of inertia
- Axial positioning to shaft not required
- Reliable due to fail-safe principle
- High level of operational safety
- Simple and robust design
- Simple installation



#### Reliable function due to fail-safe principle

The ROBA®-servostop® is a spring applied safety brake. When the brake is closed, the rotor with the friction linings is held between the armature disk and the brake plate. When the installed magnetic coil is energised, the magnetic field pulls the armature disk against the force of the springs towards the coil carrier. The brake is released.

#### Reliable even at high temperatures

The braking torque is generated through special organic friction linings. These temperature-resistant linings impress with their high, even friction coefficients, and can also be used at high ambient temperatures of up to 120 °C.

#### High permitted friction work

Normally, load mass ratios (load/motor) of 3:1 or smaller are selected for the benefit of good control characteristics and high dynamics. With the ROBA®-servostop®, load mass ratios of 30:1 and over are possible due to the high permitted friction work and friction power. In such conditions, permanent magnet brakes tend to "fret". This can lead to high increases in braking torque and thus to damage in the drive line.

#### Better than permanent magnet brakes

Permanent magnet brakes have disadvantages due to their design. On braking during movement, a mixture of frictions occurs - iron/iron and iron/friction lining. Typical for this friction pairing are the partly severe friction value fluctuations and the low permitted friction work and friction power.

#### High performance density and wear resistant

The focus was placed on high performance density and wear minimisation for the braking torque-generating components and all other components involved in transmission.

#### Simple installation

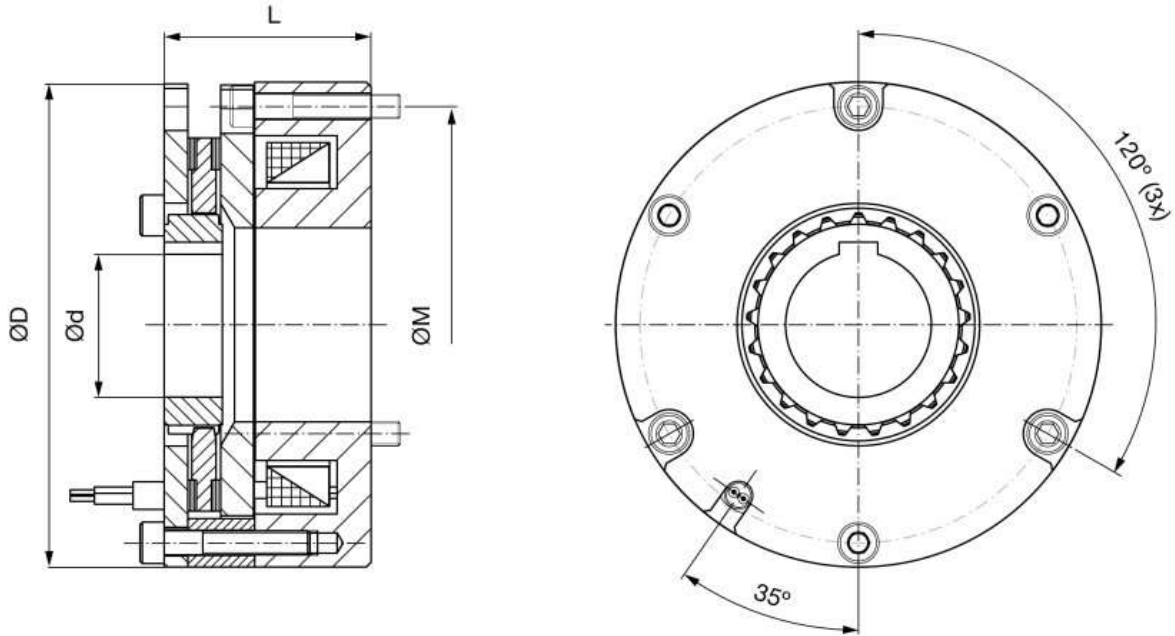
The simple and robust design makes installation substantially easier. The operating air gap does not have to be adjusted. Exact axial positioning on the motor shaft is not required. The brake always works precisely and reliably with a constant air gap, and is not influenced by bearing backlash and temperature expansions. The installation effort is therefore far lower than on permanent magnet brakes, and installation errors are almost completely excluded.

#### Any installation position

Servo brakes are the preferred choice for installation into the A-bearing shield of a motor, because the fixed bearing is located here and temperature expansions cannot influence the brake severely. The ROBA®-servostop® can also be integrated without restrictions into the B-bearing side of the motor, as temperature expansions and bearing backlash do not have a negative influence on the function and the reliability of the brake.

## ROBA®-servostop®

Type 898.000.0



### As reliable partners, we provide:

- Comprehensive service
- Individual customer brake solutions from us as market leader
- High competence through own test stands

### Optimally tailored to your servomotors

We will design a perfectly adapted and aligned solution suitable for your servomotors. Just contact us!

The table below contains only the most important data and dimensions of the basic sizes.

Technical Data and Main Dimensions			Size					
			60	80	100	120	140	160
Minimum holding torque at an ambient temperature of 120 °C	$T_N$	[Nm]	3,25	7	16	32	60	100
Outer diameter	D	[mm]	62	80	102	124	147	166
Screw-on pitch circle	M	[mm]	56	72	90	112	132	145
Length	L	[mm]	30	36	45	45,6	54,6	60,6
Minimum hub bore	$d_{min}$	[mm]	9	11	15	18	30	32
Maximum hub bore	$d_{max}$	[mm]	15	20	30	34	45	45
Maximum speed	$n_{max}$	[rpm]	8000	6500	5000	4000	3500	3000

We reserve the right to make dimensional and constructional alterations.

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