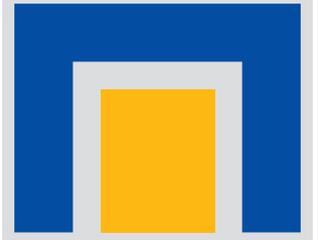


HEMA

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MASCHINEN- UND
APPARATESCHUTZ GMBH

CLAMPING SYSTEMS WITH POWERFUL BRAKING FUNCTION

ACTUATOR ACX5000-E
ACTUATOR ACX5000-P

ACTUATOR ACX5000-E

The industrial disc brake actuator ACX5000-E is a powerful representative of the HEMA actuator series with electromagnetic opening function. All variants of this actuator series are spring accumulator brakes whose internal pressure springs store the energy for generating the clamping force. As a result, all versions of the actuator ACX5000-E can also be used as a failsafe safety brake.



Actuator ACX 5000-E

High precision in braking and clamping

An electromagnetic disengage mechanism serves to open the brake actively. At the same time, the double acting clamping magnet allows operations on the industrial 24 V rating level and safeguards a minimum power draw while the brake is open. In addition to direct actuation, other equipment variants feature control and status monitoring via industrial bus interfaces. The industrial brake actuator ACX5000-E combines in the one assembly the power of a disc brake with the positioning accuracy of a clamping system.

Also, the virtually zero backlash guide system for the brake linings exhibits extremely high tangential rigidity. This gives rise to this actuator series's characteristic high precision in

stationary clamping. Even under high torques, the position, once clamped, is retained reliably.

The brake lining is fitted on a user friendly mount, so replacing brake linings is easy and, in most cases, without the need to remove the calliper. Furthermore, the clamping forces are applied to the centre of the brake linings, yielding a particularly homogeneous friction contact pattern. This promotes braking and retaining capacity and distributes evenly the wear on the brake lining and disc.

Applications

The industrial disc brake actuator ACX5000-P has been designed specifically for use on rotating brake discs, yet is also suitable for linear clamping rails. Owing to its operating principle, this is also ideal as a retaining, nonstop, operating, and safety brake in general machine and machine tool applications.

Operating range of the brake

The industrial disc brake actuator ACX5000-P is an IP 54 design, i.e. for applications in ambient temperatures ranging from +5 °C to +60 °C.

Optional equipment

- Inductive sensors for monitoring the operating state
- Warning prior to reaching the brake linings' wear limits
- Temperature sensors for additional status monitoring
- Display on the controller housing
- Actuation via bus interface
- Status prompts to the internal controller (when connected to bus interface)
- Special versions with sintered or rubber brake linings
- Clamping slides for easier installation/removal

Industrial disc brake actuator ACX5000-E

Rated clamping force	5 kN
Nominal coefficient of friction	0.35
Operating voltage	24 - 30 V DC
Max power draw (briefly during opening)	≤ 900 W
Power draw (permanent retention)	≤ 5 W
Max permissible lining wear	5 mm per lining
Permissible lining wear without readjustment	0.5 mm per lining
Installation space (approx L x W x H)	260 x 190 x 225 mm
Brake disc (or clamping strip) thickness	15 mm (user defined 10 - 30 mm)
Friction ring (or clamping strip) width	≥ 60 mm
Weight	25 kg

ACTUATOR ACX5000-P

The industrial disc brake actuator ACX5000-P is a powerful representative of the HEMA actuator series with pneumatic opening function. All variants of this actuator series are spring accumulator brakes whose internal pressure springs store the energy for generating the clamping force. As a result, all versions of the actuator ACX5000-P can also be used as a fail-safe safety brake.

In addition, the pneumatic boost function can double the clamping force of the spring loaded brake for maximum braking and retaining torques. In addition to direct actuation, other equipment variants feature control and status monitoring via industrial bus interfaces.

The industrial brake actuator ACX5000-P combines in the one assembly the power of a disc brake with the positioning accuracy of a clamping system. Also, the virtually zero backlash guide system for the brake linings exhibits extremely high tangential rigidity. This gives rise to this actuator series's characteristic high precision in stationary clamping. Even under high torques, the position, once clamped, is retained reliably.

The brake lining is fitted on a user friendly mount, so replacing brake linings is easy and, in most cases, without the need to remove the calliper. Furthermore, the clamping forces are applied to the centre of the brake linings, yielding a particularly homogeneous friction contact pattern. This promotes braking and retaining capacity and distributes evenly the wear on the brake lining and disc.

Applications

The industrial disc brake actuator ACX5000-P has been designed specifically for use on rotating brake discs, yet is also suitable for linear clamping rails. Owing to its operating principle, this is also ideal as a retaining, nonstop, operating, and safety brake in general machine and machine tool applications.



High precision in braking and clamping

Actuator ACX5000-P

Operating range of the brake

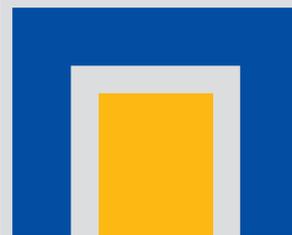
The industrial disc brake actuator ACX5000-P is an IP 54 design, i.e. for applications in ambient temperatures ranging from +5 °C to +60 °C.

Optional equipment

- Inductive sensors for monitoring the operating state
- Warning prior to reaching the brake linings' wear limits
- Temperature sensors for additional status monitoring
- Display on the controller housing
- Actuation via bus interface
- Status prompts to the internal controller (when connected to bus interface)
- Special versions with sintered or rubber brake linings
- Clamping slides for easier installation/removal

Industrial disc brake actuator ACX5000-P

Rated clamping force	10 kN
Rated clamping force with booster	30 kN
Nominal coefficient of friction	0.35
Opening pressure	4.6 bar
Maximum boost pressure	6 bar
Max permissible lining wear	5 mm per lining
Permissible lining wear without readjustment	0.5 mm per lining
Installation space (approx L x W x H)	200 x 190 x 225 mm
Brake disc (or clamping strip) thickness	15 mm (user defined 10–30 mm)
Friction ring (or clamping strip) width	≥ 60 mm
Gewicht	25 kg



Our range of service



Protection systems



Clamping and braking systems



Machine safety windows
Spin windows
LED Lighting systems



Service, logistics and maintenance

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