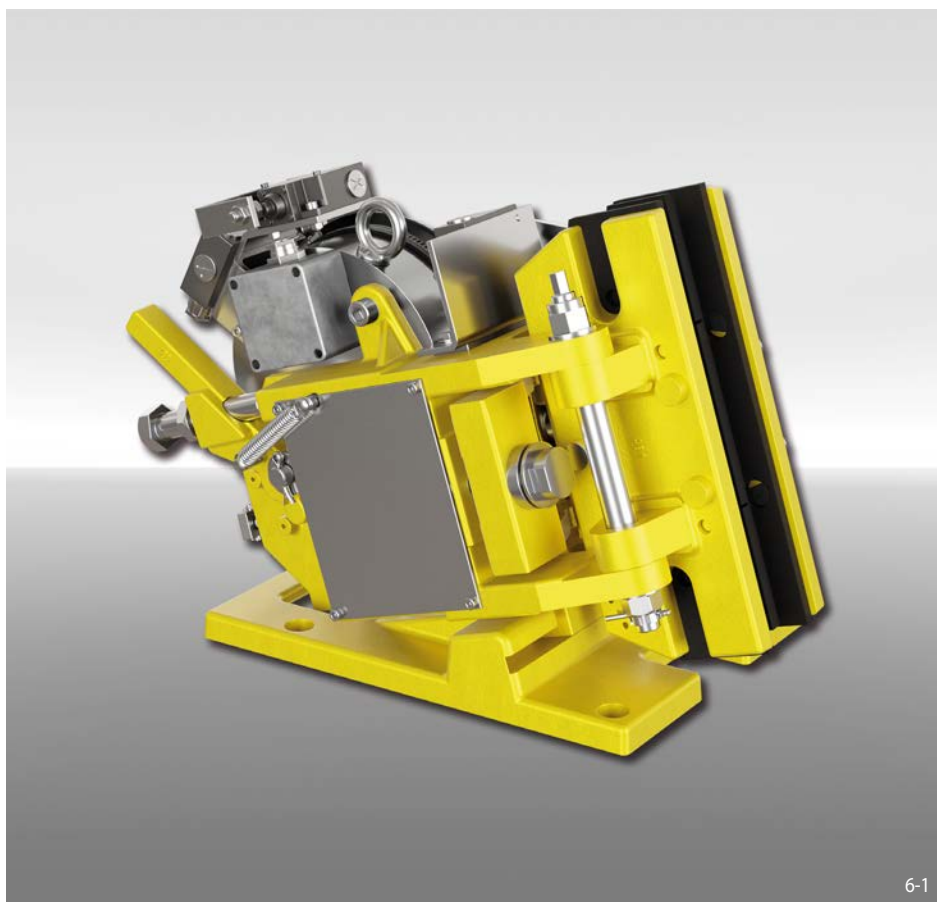


Brake Caliper DA 405 FEM/FEA

spring activated – electromagnetically released



Features	Code
Brake Caliper	D
Mounting to the machine at right angles to the brake disc	A
Frame size 405	405
Spring activated	F
Electromagnetically released	E
Manual or automatic adjustment to accommodate friction block wear	M A
Supply voltage 65 VAC	065
Electromagnet mounted in central position	M
Thickness of brake disc 12,7 mm, 15 mm or 30 mm	12 15 30

Example for ordering

Brake Caliper DA 405 FEM, supply voltage 65 VAC, electromagnet mounted in central position, thickness of brake disc 15 mm:

DA 405 FEM - 065 M - 15

Technical Data

Brake disc diameter	Braking torque
mm	Nm
520	1320
630	1680
710	1940
800	2230
900	2560
1000	2880
Clamping force	8150 N
Response time*	200 ms
Power consumption in open position	45 W
Power when opening the brake (< 1 s)	1000 W
Max. number of actuation	600 (ESE 6850) 600 (ESE 61850)
Weight	77 kg

The braking torques shown in the diagram are based on a theoretical friction coefficient of 0,4.

* The response time is the duration from switching off the power supply to reaching 80% of the maximum clamping force (at Ta = 20 °C).

Working conditions

- Ambient temperature: -20 °C / +60 °C
- Air humidity: <90%

Optional monitoring switches

- Switching sensors for status signals: "brake open", "brake pad wear control" (FEM), "brake lining wear limit" (FEA) and "manual release activated"
- 240 VAC 1,5 A; 250 VDC 0,1 A
- Cable Entry PG11
- Protection type IP66

Options

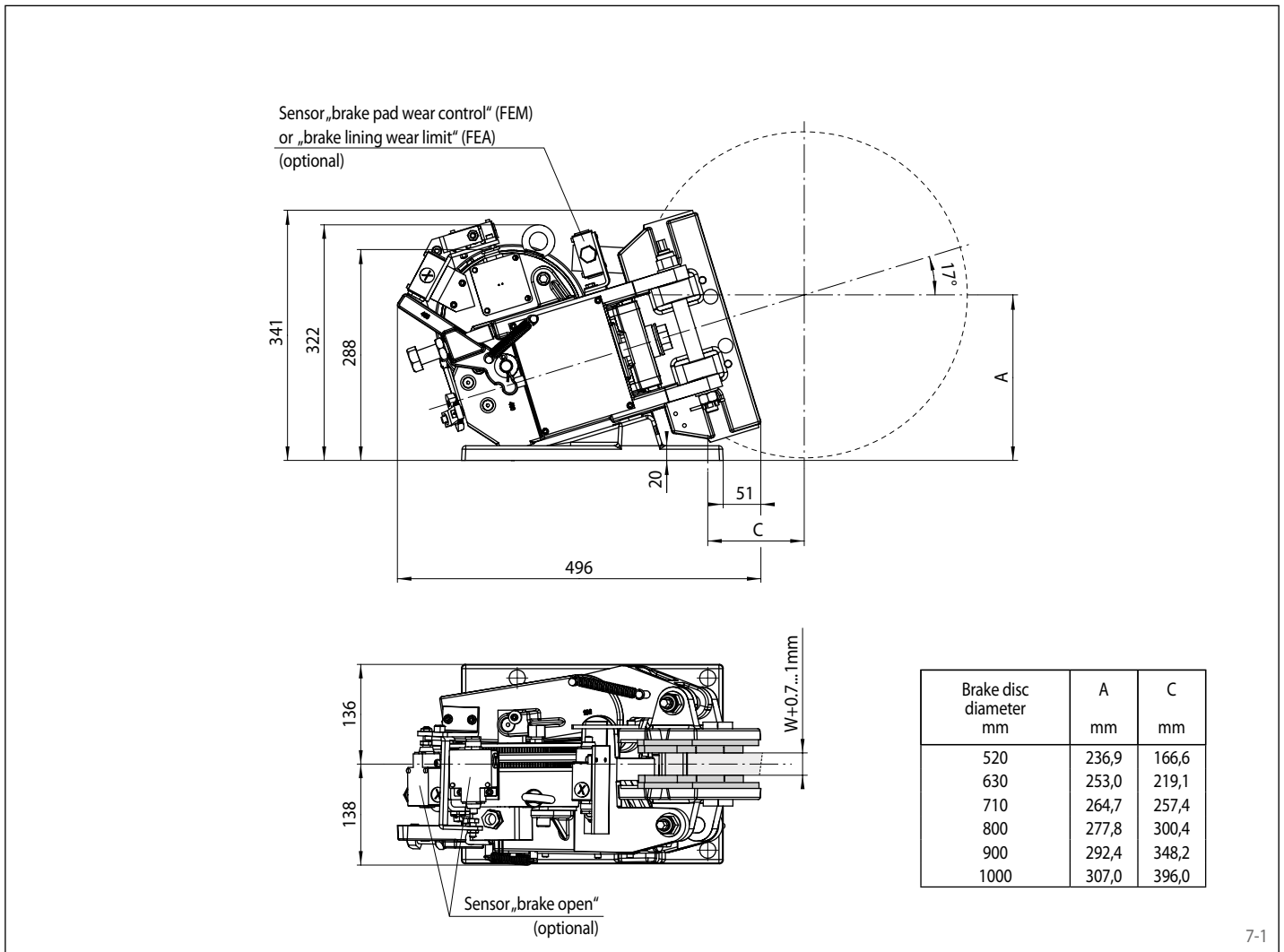
- Lever for manual release
- Corrosion protected design
- Friction linings for brake discs
ø D min. = 445 mm
- 24 V Coil (modified response time)

Notes

- Fastening:
4 screws M20, class 8.8 with tightening torque 370 Nm ±10% μ 0,15 (not supplied)

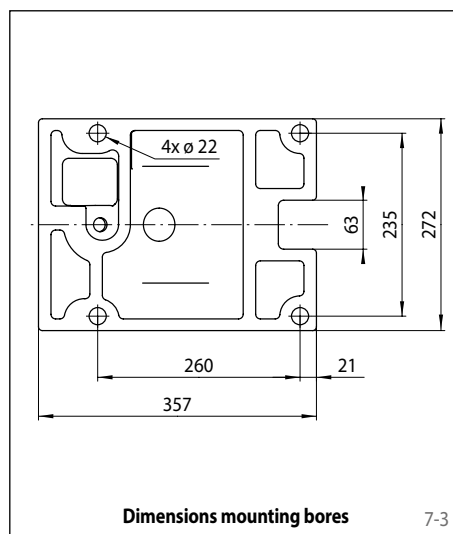
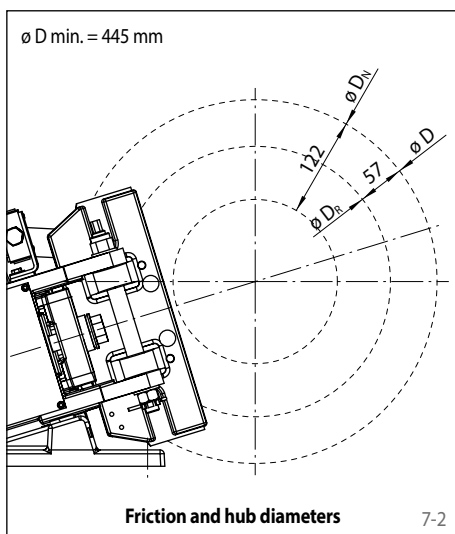
Brake Caliper DA 405 FEM/FEA

spring activated – electromagnetically released



7-1

Mounting



Calculation of the friction diameter

$$D_R = D - 114 \text{ mm}$$

Calculation of the hub diameter

$$D_N = D - 244 \text{ mm}$$

Calculation of the braking torque

$$M_B = F_K \cdot D_R \cdot \mu$$

Calculation of distance A

$$A = 0,146 \times D + 161 \text{ mm}$$

Calculation of distance C

$$C = 0,478 \times D - 82 \text{ mm}$$

Formula symbols

D = Outer diameter brake disc [mm]

D_N = Hub diameter [mm]

D_R = Friction diameter [mm]

F_K = Clamping force [N]

M_B = Braking torque [Nm]

μ = Friction coefficient