Brake Caliper DA 305 FEM/FEA

spring activated – electromagnetically released

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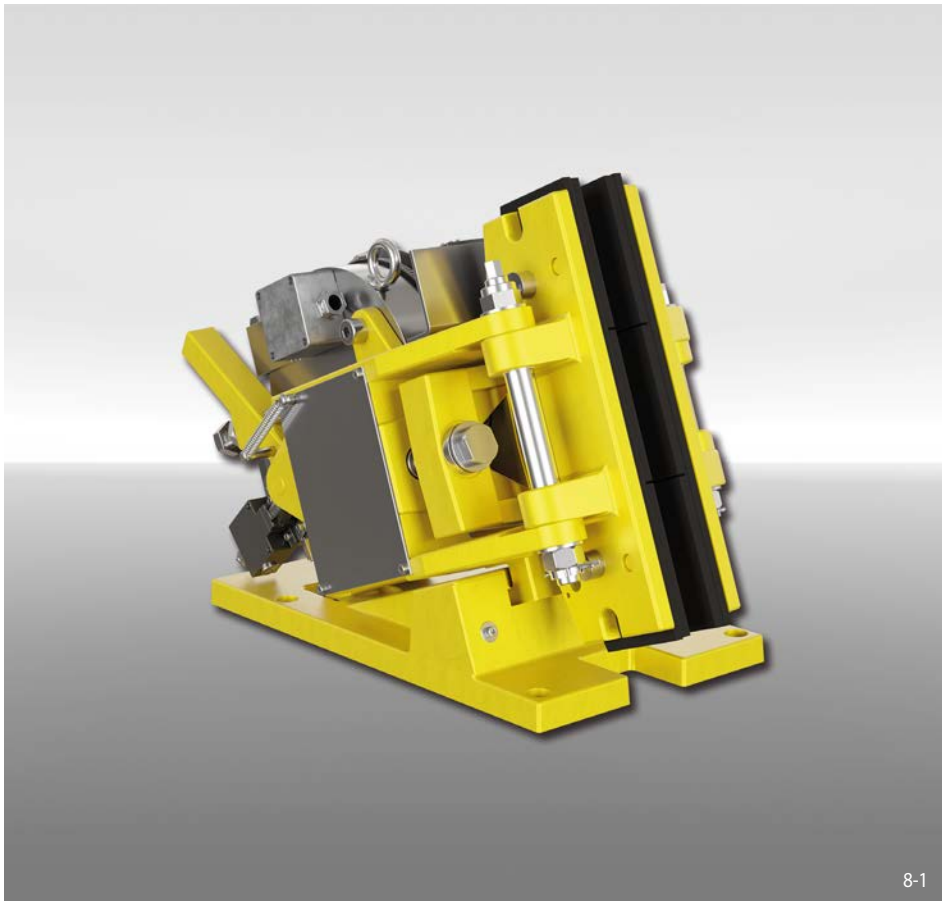

Technical Data

Brake disc diameter mm	Braking torque Nm
520 630 710 800 900 1000	2160 2780 3230 3740 4300 4870
Clamping force	14100 N
Response time*	200 ms
Power consumption in open position	60 W
Power when opening the brake (< 1 s)	1095 W
Max. number of actuation	450 (ESE 6850) 600 (ESE 61850)
Weight	120 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)

Features	Code
Brake Caliper	D
Mounting to the machine at right angles to the brake disc	A
Frame size 305	305
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, 30 mm or 42 mm	12 15 30 42

Example for ordering

Brake Caliper DA 305 FEM, supply voltage 65 VAC, electromagnet mounted in central position, thickness of brake disc 15 mm:

DA 305 FEM - 065 M - 15

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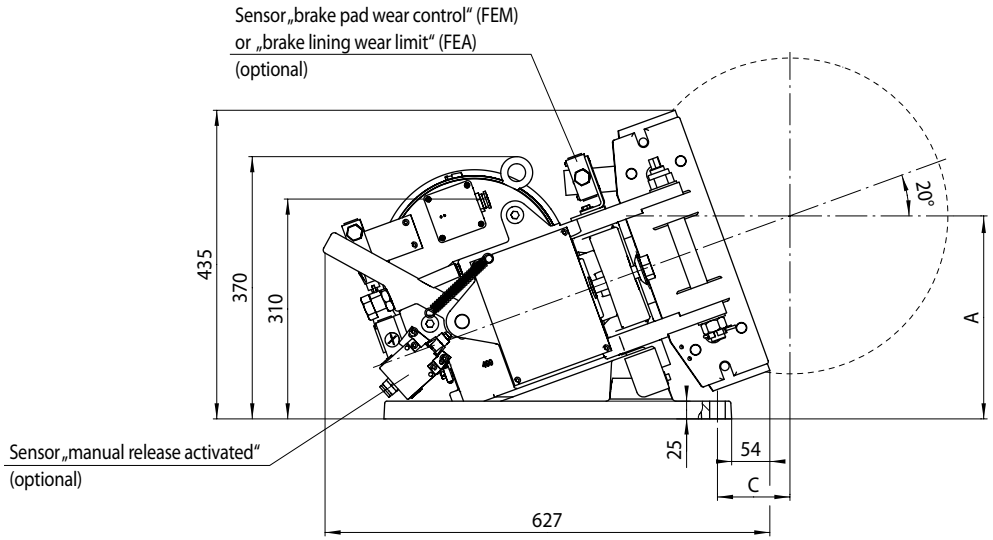
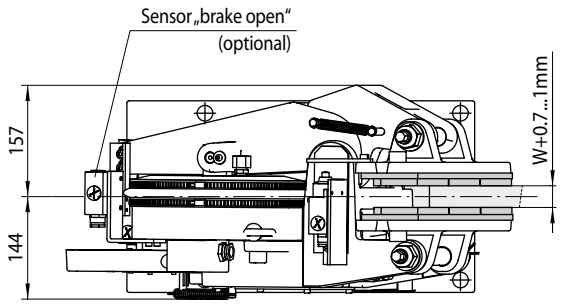
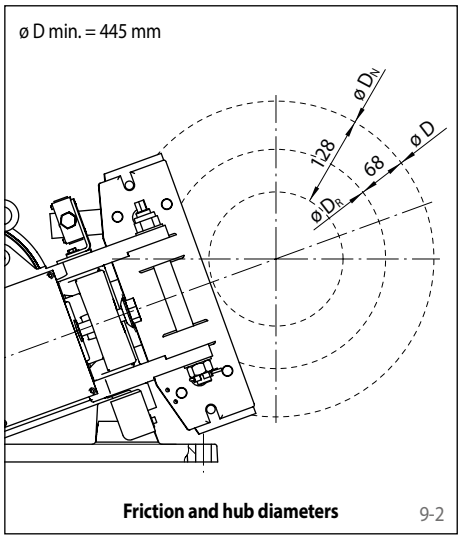




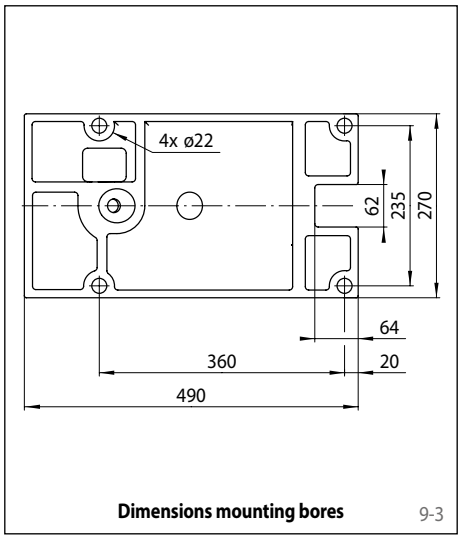
Brake disc diameter mm	A mm	C mm
520	298,9	137,4
630	317,7	189,1
710	331,4	226,7
800	346,8	269,0
900	363,9	316,0
1000	381,0	363,0

9-1

Mounting



Friction and hub diameters 9-2



Dimensions mounting bores 9-3

Calculation of the friction diameter

$D_R = D - 136$ mm

Calculation of the hub diameter

$D_N = D - 256$ mm

Calculation of the braking torque

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

Calculation of distance A

$A = 0{,}171 \times D + 210$ mm

Calculation of distance C

$C = 0{,}47 \times D - 107$ 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