Brake Caliper DA 561/560/556 FEM/FEA

spring activated – electromagnetically released

RINGSPANN®

Features

Features	Code
Brake Caliper	D
Mounting to the machine at right angles to the brake disc	A
Frame size 561, 560 or 556	561 560 556
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 561 FEM, supply voltage 65 VAC, electromagnet mounted in central position, thickness of brake disc 15 mm:

DA 561 FEM - 065 M - 15

Technical Data

	Bremse DA … FEM / FEA		
	561	560	556
Brake disc diameter mm	Braking torque Nm	Braking torque Nm	Braking torque Nm
250	65	120	160
300	85	160	210
355	100	190	250
430	130	240	320
520	160	300	400
630	200	380	500
Clamping force	880 N	1680 N	2200 N
Response time*	200 ms	200 ms	200 ms
Power consumption in open position	10 W	10 W	35 W
Power when opening the brake (< 1 s)	255 W	310 W	895 W
Max. number of actuation	150 (ESE 6850)	150 (ESE 6850)	150 (ESE 6850)
Weight	20 kg	20 kg	20 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

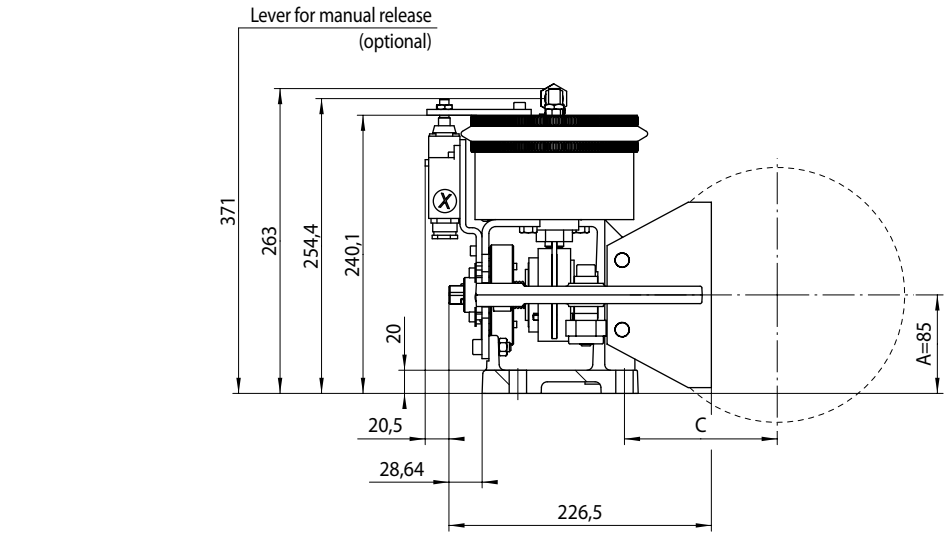
- Lever for manual release
- Corrosion protected design
- Friction linings for brake discs ø D min. = 175 mm
- 24 V Coil (modified response time)

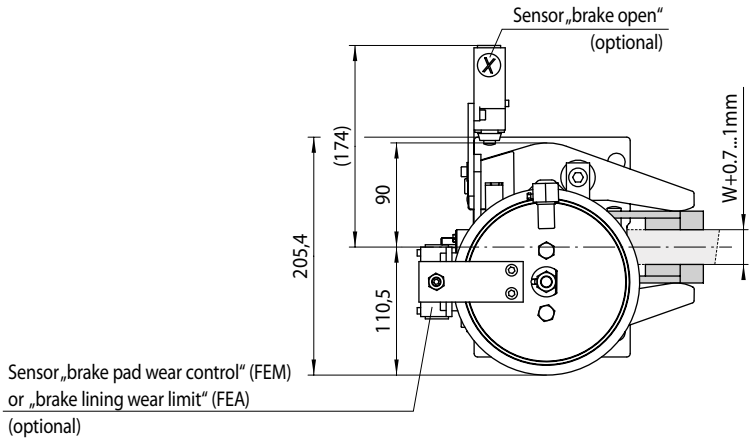
Notes

- Fastening:
  4 screws M14, class 8.8 with tightening torque 133 Nm ±5% μ 0,12 (not supplied)

Brake Caliper DA 561/560/556 FEM/FEA

spring activated – electromagnetically released

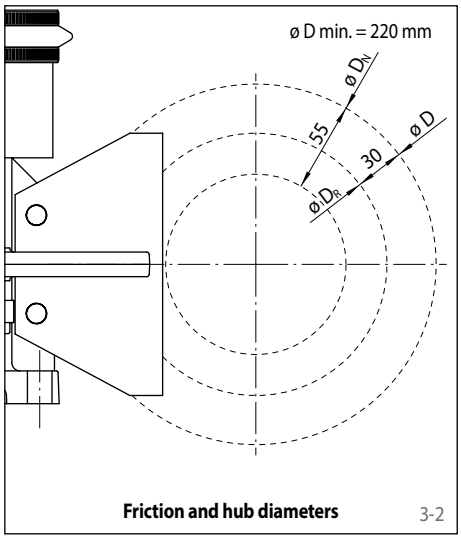




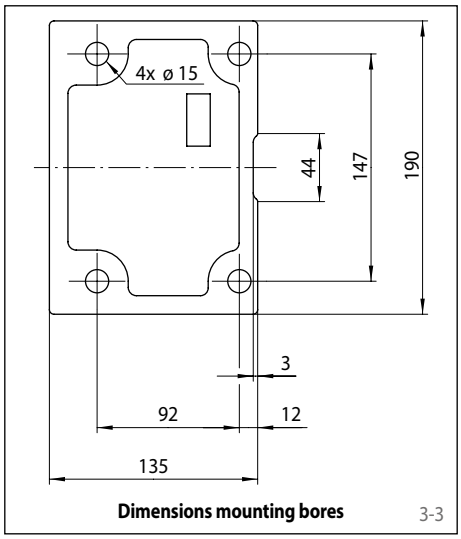
Brake disc diameter mm	C mm
250	147,0
300	172,0
355	199,5
430	237,0
520	282,0
630	337,0

3-1

Mounting



Friction and hub diameters 3-2



Dimensions mounting bores 3-3

Calculation of the friction diameter

$D_R = D - 60$ mm

Calculation of the hub diameter

$D_N = D - 110$ mm

Calculation of the braking torque

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

Calculation of distance C

$C = 0{,}5 \times D + 22$ 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