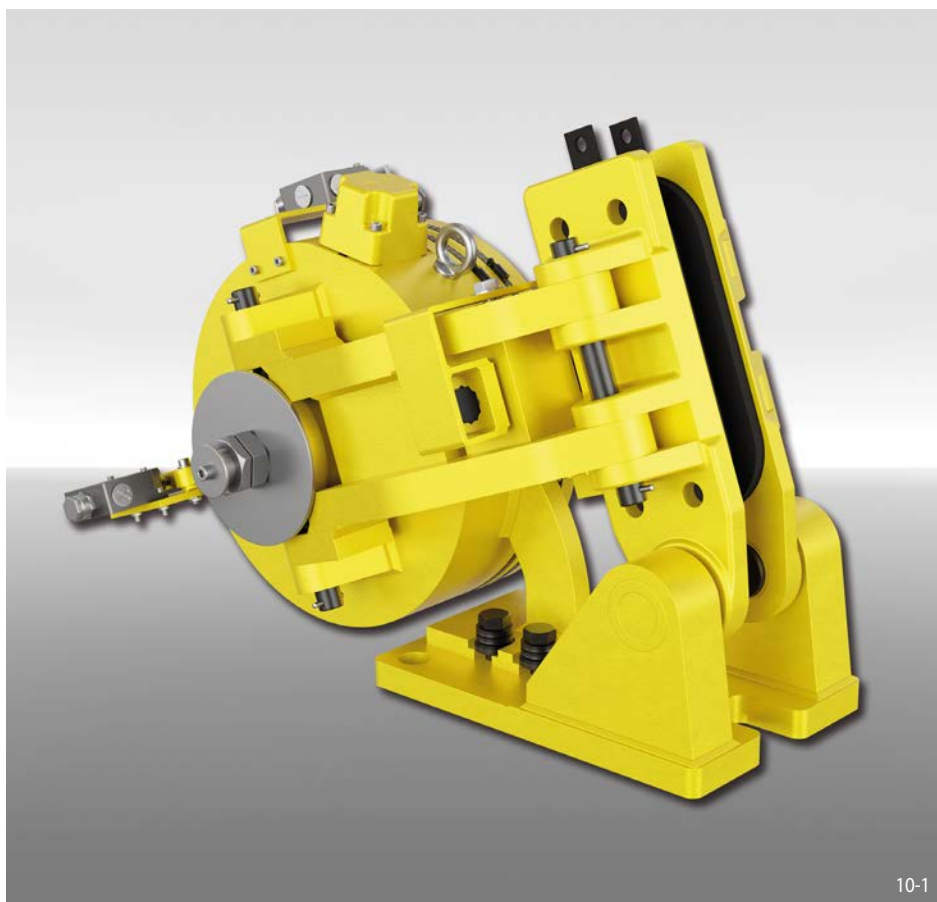


spring activated – electromagnetically released



Features	Code
Brake Caliper	D
Mounting to the machine at right angles to the brake disc	A
Frame size ST1 or ST2	ST1 ST2
Spring activated	F
Electromagnetically released	E
Manual (ST1/ST2) or automatic (ST1) adjustment to accommodate friction block wear	M A
Supply voltage 65 VAC	065
Electromagnet mounted in central position	M
Thickness of brake disc 30 mm	30

### Example for ordering

Brake Caliper DA ST1 FEM, supply voltage 65 VAC, electromagnet mounted in central position, thickness of brake disc 30 mm:

DA ST1 FEM - 065 M - 30

## Technical Data

	Bremse DA ... FEM / FEA	
	ST1	ST2
Brake disc diameter	Braking torque	Braking torque
mm	Nm	Nm
520	7440	14900
630	9580	19200
710	11100	22300
800	12800	25800
900	14800	29700
1000	16700	33600
Clamping force	48500 N	97000 N
Response time*	200 ms	200 ms
Power consumption in open position	160 W	160 W
Power when opening the brake (< 1 s)	2830 W	2830 W
Max. number of actuation	100 (ESE 61850)	100 (ESE 61850)
Weight	225 kg	225 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

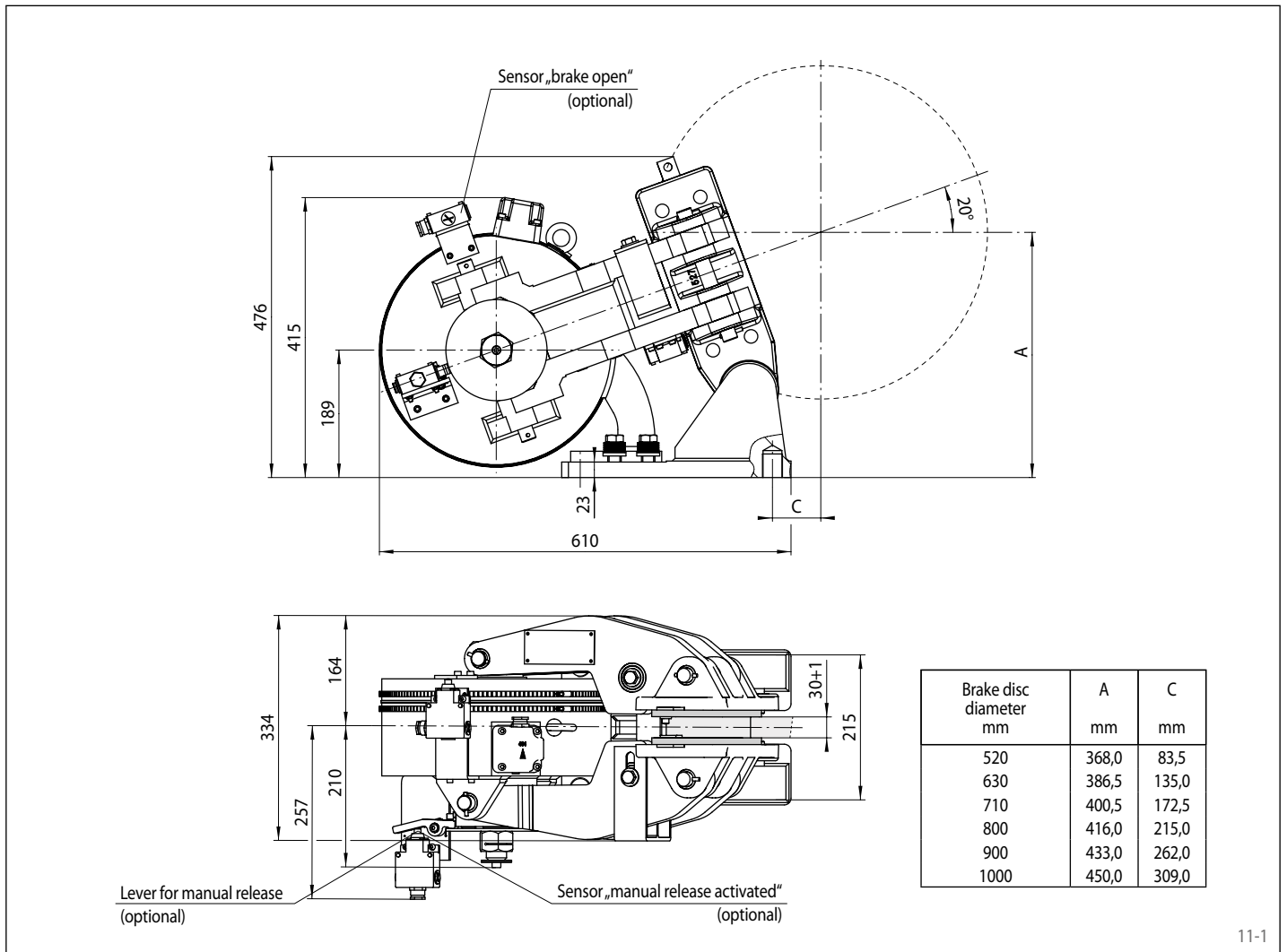
- Lever for manual release
- Corrosion protected design
- Friction linings for brake discs  
ø D min. = 495 mm
- 24 V Coil (modified response time)

## Notes

- Fastening:  
4 screws M30, class 8.8 with tightening torque 750 Nm ±5% μ 0,15 (not supplied)

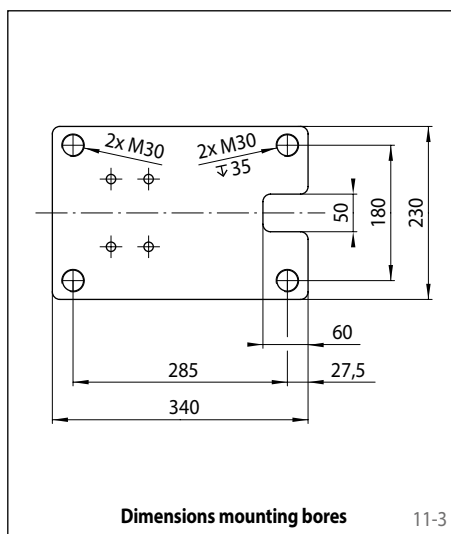
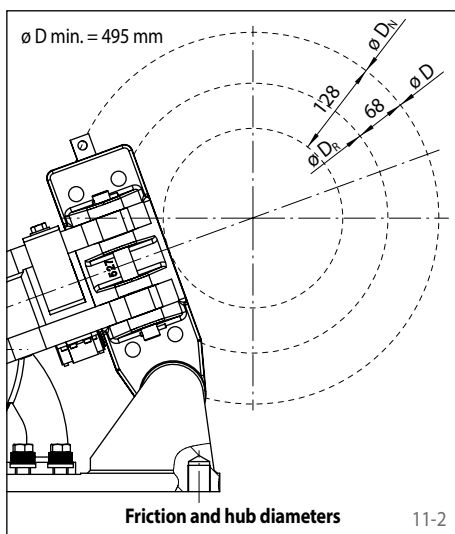
# Brake Caliper DA ST1 FEM/FEA and DA ST2 FEM

spring activated – electromagnetically released



11-1

## Mounting



## Calculation of the friction diameter

$$D_R = D - 136 \text{ mm}$$

## Calculation of the hub diameter

$$D_N = D - 256 \text{ mm}$$

## Calculation of the braking torque

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

## Calculation of distance A

$$A = 0,171 \times D + 279 \text{ mm}$$

## Calculation of distance C

$$C = 0,47 \times D - 161 \text{ mm}$$

## 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]

$\mu$  = Friction coefficient