



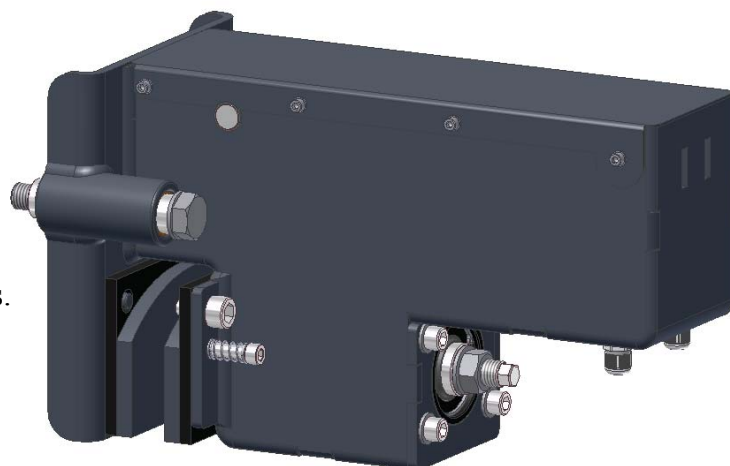
DISC BRAKE – MODEL EMP 95

SPRING APPLIED, ELECTRIC RELEASED DISC BRAKE

The Dellner Brakes electro-mechanical DELECT model EMP 95 spring applied, electric released disc brake offers a reliable and safe method of braking linear or rotary motion.

The brake is compact, light weight, durable and suitable for outdoor / dirty environments. The disc brake is designed to adapt a brake disc thickness of 12 - 25 mm.

One spring package included in the brake retracts the brake pads from the disc when power is applied.



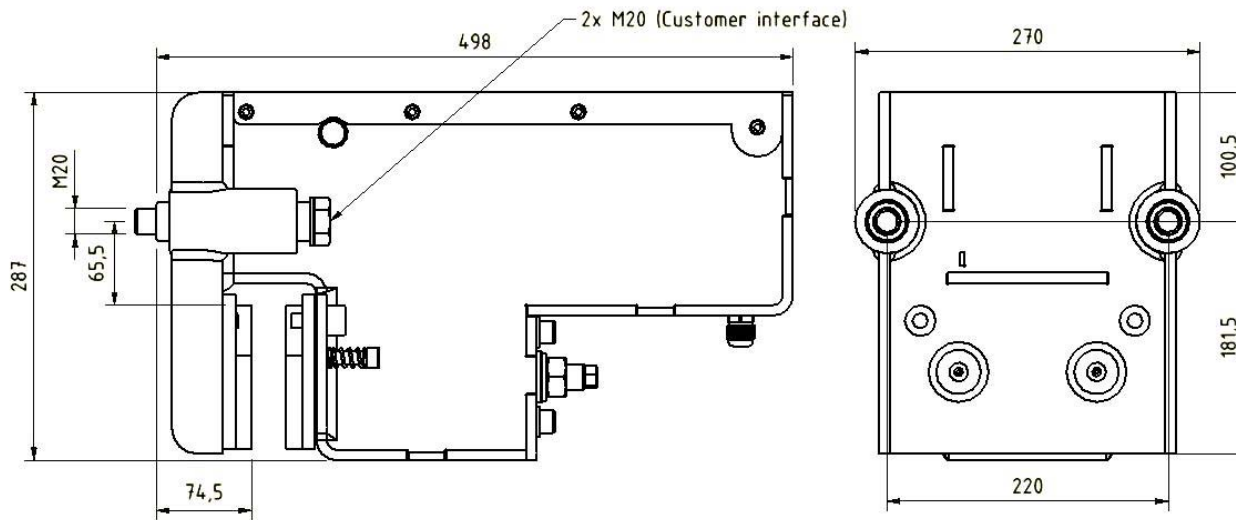
The brake is designed as single acting and therefore especially suitable when limited space on one side of the application is necessary, for example windmill, crane and winch applications.

To maintain full brake torque, the brake should be adjusted when below mentioned maximum air gap value is exceeded.

Model	Tangential braking force F		Electric Power [V DC] ⁴⁾	Air gap between brake disc and lining		Estimated life of disc spring pack		Friction area per brake [cm ²]	Weight [kg]
	[N] ¹⁾			[mm]		[no. of strokes]			
	max. ²⁾	min. ³⁾		min. ⁵⁾	max. ⁶⁾	min. ⁷⁾	max. ⁸⁾		
EMP 95-10	12600	10700	24	2x1,0	2x2,5	>2x10 ⁶	>2x10 ⁶	402	36
EMP 95-14	17800	14300	24	2x1,0	2x2,5	>2x10 ⁶	>2x10 ⁶		
EMP 95-18	24000	18200	24	2x1,0	2x2,5	>2x10 ⁶	>2x10 ⁶		
EMP 95-27	33500	27800	24	2x1,0	2x2,5	>6x10 ⁵	>1x10 ⁶		

- 1) Calculated with an average frictional coefficient $\mu=0,42$. Consideration has not been taken for external factors.
- 2) Braking force with correctly adjusted disc spring pack.
- 3) Braking force with maximum recommended air gap before adjustment is needed.
- 4) 12 and 36 V DC are optional
- 5) Air gap for correctly adjusted brake.
- 6) Maximum recommended air gap before adjustment is needed.
- 7) Valid for minimum spring pack compression.
- 8) Valid for maximum spring pack compression.

Dimensions



Torque table in Nm

The braking torque is calculated from the following formula:

$$M_{brake} = \frac{q \times F \times (D_s - H)}{2}$$

q = number of brakes

F = braking force according to the table below [N]

D_s = brake disc diameter [m]

H = brake pad height [m] (EMP 95 = 0,120)

DELECT Brake model	Tangential braking force F [N] ¹⁾		Disc diameter D [mm]							
	max. ²⁾	min. ³⁾	ø400	ø450	ø500	ø600	ø700	ø800	ø900	ø1000
EMP 95-10	12600	10700	1490	1760	2030	2560	3100	3630	4170	4700
			1760	2070	2390	3024	3650	4280	4910	5540
EMP 95-14	17800	14300	2000	2350	2710	3430	4140	4860	5570	6290
			2490	2930	3380	4270	5160	6050	6940	7830
EMP 95-18	24000	18200	2540	3000	3450	4360	5270	6180	7090	8000
			3360	3960	4560	5760	6960	8160	9360	10560
EMP 95-27	33500	27800	3890	4587	5280	6670	8060	9450	10840	12230
			4690	5520	6360	8040	9710	11390	13060	14740

1) Calculated with an average frictional coefficient $\mu=0,42$. Consideration has not been taken for external factors.

2) Braking force with correctly adjusted disc spring pack.

3) Braking force with maximum recommended air gap before adjustment is needed.

Options

- ✚ Proximity switches for indicating on/off or “time to adjust”.

Suitable applications

Dellner Brakes DELECT model EMP 95 is suitable wherever safety brakes are needed, for example in the following types of applications:

- ✚ Cranes
- ✚ Winches

- ✚ Conveyors
- ✚ Wind mills

- ✚ Emergency stops
- ✚ Parking applications